



# HARVARD MEDICAL

ALUMNI BULLETIN

SUMMER 1989

**Aggression:**

*The Human  
Battleground*

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# HARVARD MEDICAL

ALUMNI BULLETIN / SUMMER 1989 / VOL. 63 NO. 1

## FEATURES

- 14 **Dangerousness:** The Ubiquitous Virus of Criminality *by Harry L. Kozol*
- 19 **Aggression:** Neural Controls Out of Control *by David Bear*
- 23 **Triumph Over Torture:** Against All Odds *by Albert Crum*
- 31 **Negligence:** A Short Story *by George S. Bascom*
- 38 **Two Black Alumni:** Overcoming Racial Barriers *by Preston R. Black*
- 43 **Changes:** Physicians Reflect on Their Careers *by Nancy L. Bennett*
- 46 **Intimate Strangers:** Learning to Doctor in Rural Alabama *by Ariane Staub*
- 50 **Ophthalmologists:** Setting New Sights *by John D. Bullock*

## DEPARTMENTS

- 3 **Letters**
- 4 **Pulse:** USSR/HMS exchange, cold virus receptor identified, second-year show, match results, new teacher-clinician track
- 9 **Campaign Report:** Financial Aid
- 10 **Book Marks:** *Care and Punishment: the Dilemmas of Prison Medicine* by Curtis Prout and Robert N. Ross; review *by John D. Stoeckle*.
- 12 **Commentary:** Lesson From AIDS *by Ferdinand James Gay*
- 55 **Alumni Notes**
- 61 **In Memoriam:** Robert E. Gross and Clement A. Smith
- 64 **Death Notices**

*Cover: Battle of the Greeks and Amazons, detail from a 2nd century A.D. Roman sarcophagus fragment. Arthur M. Sackler Museum, Harvard University, bequest of Charles W. Gould.*



# INSIDE H.M.A.B.

**T**his issue started out as a miscellany, then something happened. Very much like iron filings in a magnetic field, ideas polarized. At the poles were violence and aggression to which so much of present-day media hardens us with a sense of immediacy we did not “enjoy” in the past. A book review sets the stage—*Care and Punishment*—the dilemma of medical care in prisons as seen by Curtis Prout '41, who became personally involved in seeking the solution, still unsolved.

Harry Kozol '34, leads off the features with the criteria he and his wife have used to identify “dangerousness” in men and nations. David Bear '71, describes the neurology of aggression in anatomic terms; then follows Albert Crum '57, with a fascinating interpretation of the ordeal of the Dalai Lama's personal physician, Tenzin Choedrak, who emerged “triumphant” after 21 years in a Chinese prison.

But between the poles of aggression and violence, there is a lighter side. A short story by George Bascom '52, makes us feel that Manhattan, Kansas may be the medical Lake Wobegone of America; Preston Black '75, writes of William Hinton '12, and Louis Wright '15, both champions of their cause; Nancy Bennett, a director of Continuing Education, identifies the three stages of being a doctor; Ariane Staub '90, reminds us of student involvement with the care of the poor; and John Bullock '68, speaks of ophthalmologists afield.

We close with tributes to two Harvard Medical School and Children's Hospital greats: Bob Gross '31 and Clement Smith.

And, oh yes, our managing editor, Ellen Barlow, has brought forth a once and future reader of the *Bulletin* into this naughty world. A baby boy!

—Gordon Scannell

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# LETTERS

## An Appreciation

A note just to tell you of my continued delight with the *Bulletin*. The only pity is that it is not a nationally sold magazine. The winter edition would profit all physicians because it sustains a middle ground neither too technical nor too gossipy. I see, and oddly enough read, medical literature, but little of it gains me as much pleasure, even though I did not graduate from HMS.

—Irvine H. Page, MD

## Sharpening a Point

We agree wholeheartedly with Director of Admissions Gerald Foster's comments in the Winter 1989 *Pulse* section regarding the need for more loans and scholarships for incoming HMS students, and we would like to emphasize a specific example of this need. As Dr. Foster notes, the quality of HMS students has not suffered in the face of declining applications, but we submit that at least one specific group will be very seriously and immediately threatened by a paucity of funding.

Although the world-renowned reputation of the faculty, hospitals, and laboratories at HMS certainly cannot be disputed, when we ponder what most impresses us about HMS, we think of our fellow students. The diverse student body has always been the strength and soul of HMS and has produced not only master clinicians, writers and poets, but, predictably, also great scientists. HMS and the Division of Medical Sciences can count amongst its graduates 11 Nobel laureates.

However, the current lack of loans and scholarships threatens graduates in academic medicine on at least two levels. First, given the increasing complexities of modern biomedical research, longer training times will be needed to produce tomorrow's physician-scientists. Furthermore, even with generous financial aid currently available, today's typ-

ical HMS student will graduate with an average debt of \$70,000. This staggering amount will preclude most graduates from pursuing careers in academic research given the expected low financial returns.

In addition, the HMS- and National Institutes of Health-funded Medical Scientist Training Program (MSTP or M.D.-Ph.D. program), launched 15 years ago to assist in the training and funding of promising future researchers, is also threatened by funding shortages. Since its inception, the program has followed an exceptional course charted first by Dr. James Adelstein, followed by Dr. Edgar Haber and currently by Dr. Bernardo Nadal-Ginard. Recently, the program received a near-perfect rating of 1.1 from the NIH Site Visit Committee. It has produced graduates like Anthony Monaco, who played a key role in unravelling the mysteries of Duchenne muscular dystrophy at the genetic level.

Due to recent cutbacks in research budgets, however, the MSTP will lose a significant portion of its funding, and will be able to support fewer candidates. Last year, 25 candidates were judged extremely qualified for acceptance to the HMS program, and of these, only 6 were offered admission and support. This fact, combined with dwindling numbers of non-MSTP medical students entering academic medicine, brings HMS's ability to produce tomorrow's leading investigators seriously into question.

We agree with Dr. Foster's assessment of the need for more scholarship funds and would further suggest that those who are able to consider designating a portion of assistance specifically in support of Harvard's M.D.-Ph.D. Program. This program is critical to ensure the recruitment and training of physician-scientists for the Third Century of Harvard Medicine.

—Yung-Kang Chow, Peabody II '91  
J. Keith Joung, Peabody II '91

## The Good Old Days

Perhaps we were not all iron men. Perhaps those of us who trained in the thirties and forties spent a great deal of time in the hospital, but the hours were not necessarily devastating.

Having graduated in 1937, I spent two and a half years at Boston Children's and then went on to the Buffalo Children's for another two years. Since marriage was a rarity then, we lived close to our work, spending no time commuting. Even our dining room, (with full service and linen on the table) was no distance from the wards.

We did have nights on call; every other one and every other full weekend, but proximity made even bad hours endurable. Teaching, like our own availability, was omnipresent. We probably put in more working hours per week than now but, since we were not being trained in defensive medicine, our (hospital laundered) jackets and pants needed only starch, not iron.

It would be better to extol our training as tinged with gold than one of the baser metals. We feel lucky for our own fate and can only express pity for those who are training today.

Thank you for the good material which makes the *Bulletin* such worthwhile reading.

—Henry H. Work '37

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*Soviet medical students toured Boston by bus.*

## Roots of Friendship Between USSR and HMS Students

Harvard Medical School students hosted 25 Soviet medical students from the Second Moscow Pirogov Medical School for one week in February. This first step in the USSR-HMS exchange took place in the spirit of friendship—to strengthen “the common goals of world health,” said Stephanie Seinara ’91 in her welcome speech.

The Soviet students were accompanied by Vice-Rector Gennadyi Ivanovich Storozhakov and Oksana Andreevna Kislyak, cardiologists at the Second Moscow Pirogov Medical School. “Our hearts are open,” said Storozhakov. “I think it is of great value for young people to communicate with each other. They are our future. I hope our work will be a small step towards the eradication of the cold war, so we may live in a better world.”

With little time to spare, the Soviet

visitors sat in on HMS classes, toured the Freedom Trail and Boston’s shelters for the homeless, attended health forums on AIDS, medical education, health policy and other issues, and accompanied students and physicians on their rounds. Other highlights included a talk by Bernard Lown, co-founder of International Physicians for the Prevention of Nuclear War (IPPNW), on the role of the medical community in the prevention of nuclear war, and an address by Julius Richmond, HMS professor *emeritus* and former U.S. Surgeon General.

Despite a full schedule, the Soviet students still found time to befriend HMS students, who, in turn, planned to visit them in Moscow in April. On the final night of their stay, the Soviet visitors presented HMS with a small birch tree brought from the USSR, as a symbol of growing friendship and cooperation between the countries. The tree will have its permanent home in the Vanderbilt Hall courtyard. □

## Receptor Identified for Common Cold Virus

Medicine may not yet have a remedy for the common cold that competes with chicken soup, but it is now one step closer. Researchers at HMS and Boehringer Ingelheim Pharmaceuticals have identified the major cell-surface receptor for rhinoviruses on the nasal epithelium.

“Knowing the location of the major receptor gives us a place to look for a cure for the common cold,” said Timothy Springer, HMS associate professor of pathology, and one of the team’s researchers. In the same March 10 issue of *Cell* in which the HMS/Boehringer team reported their findings, investigators from Connecticut independently reported similar results.

The fact that there are about 100 immunologically distinct subtypes of rhinoviruses has thwarted efforts to find one vaccine against all. But Springer’s team found that 90 percent of the subtypes use the Intercellular Adhesion Molecule-1 (ICAM-1) receptor to infect the host cell. It may be possible, they believe, to find one treatment to stop all rhinoviral infection at this point of entry.

The initial infection causes inflammation and—as is already known—causes the number of receptors in neighboring cells to increase. More cells are then vulnerable to infection and the virus ensures its own spread.

Springer and his co-authors speculate that a soluble ICAM-1 may be used as a decoy to bind to the rhinoviruses. If all of the virus’s attachment sites were used up, the virus would be unable to bind to or infect its usual target cells. Some day, perhaps, the common cold may be less common. □

## Second-Year Class Fakes a Better Show

The spoofing hands of second-year scriptwriters continue to take jabs at the New Pathway. This year’s second-year show, “Can We Fake a Better Doctor?,” was also a take-off on *NOVA*’s documentary on medical training at Harvard, “Can We Make a Better Doctor.”

In an orientation video, entering HMS students learned that New Pathway fever was catching on everywhere: There was N.P. Cola, Dan Goodenough dolls, and even a McDonald’s Big MEC (i.e., the abbreviation for the new medical education center). “Fact junkies”



From top: "Doc in Hoc"; morning rounds with Judah Folkman (Mark Blüzer '91); and commercial interlude.

sought help from malpractice lawyers to get their "Doc in Hoc." There was a zappy pharmacokinesthetics rap song. The actual NOVA crew came on the stage for a scene. And the finale, "Physician!," sung to the tune of *Fiddler on the Roof's* "Tradition." □

## The Envelope, Please!

An unprecedented 75 percent of 137 students matched with their first choice in the 1989 National Resident Matching Program; 89 percent received one of their top three choices of residencies.

Internal medicine was the choice of 39 students, marking a reverse in the 14-year decline in this specialty, according to Curtis Prout '41, assistant dean for student affairs. Thirty-three students chose medicine last year. The number of students selecting pediatrics this year is 14, down from last year's 22. But pediatrics still holds steady in second place in popularity, while surgery remains third. Eleven students chose surgery this year, in contrast to last year's 19 students.

Interest in both medical and surgical subspecialties has risen at HMS and nationally. Many students, therefore, are starting with one-year residencies in either preliminary surgery or medicine, which are prerequisites for subspecialty training.

Graduates and their intended specialties are:

### ANAESTHESIA

**Chen, Edward**  
Massachusetts General Hospital

**Forman, Stuart**  
Massachusetts General Hospital

**Stabile, Jack**  
Massachusetts General Hospital

### DERMATOLOGY

**Bienenstock, Arielle**  
New York Hospital

**Krell, James**  
Beth Israel Hospital

**Lindgren, Ann**  
Brigham & Women's Hospital, MA

### EMERGENCY MEDICINE

**Jaggers, Kim**  
Henry Ford Hospital, MI

### FAMILY PRACTICE

**Bachelder, Gloria**  
University of New Mexico School of Medicine

**Swift, Martha**  
Highland Hospital, NY

were shown floundering; they now had to share instead of memorize.

On "Churchill Chat," HMS faculty had to confront Churchill Lady's accusations that they were forcing cutting edge education down students' throats. And students from three medical schools played "Longwood Jeopardy" for prestigious residencies in the Longwood medical area. The woman from HMS won; the Johns Hopkins student had more points, but as the emcee said, "That's irrelevant because *she* went to Harvard."

In a commercial interlude, the audience was offered a text called *What Your Doctor Never Learned in Medical School*. If they ordered now, they would also get free *What Your Doctor Never Learned at Harvard Medical School*, a ten-volume set about four feet high.

During another game show, patients



**Wadle, Dawn Marie**  
University of California/San Francisco

## MEDICINE

**Aguiar, Eric**  
Hospital of the University of Pennsylvania

**Baer, Margaret**  
Massachusetts General Hospital

**Bishai, William**  
Brigham & Women's Hospital, MA

**Bloomfield, Daniel**  
Presbyterian Hospital, NY

**Carmichael, Elizabeth**  
Wilford Hall USAF Medical Center, TX

**Chertow, Glenn**  
Brigham & Women's Hospital, MA

**Chodosh, Lewis**  
Massachusetts General Hospital

**Christakis, Nicholas**  
Hospital of the University of Pennsylvania

**Chueh, Henry**  
Massachusetts General Hospital

**Concus, Adriane**  
Massachusetts General Hospital

**Drachman, Jonathan**  
University of Washington Affiliated, WA

**Emond, Stephen**  
Massachusetts General Hospital

**Ganz, Leonard**  
Brigham & Women's Hospital, MA

**Giugliano, Robert**  
Cedars-Sinai Medical Center, CA

**Goldszmidt, Jeannete**  
Graduate Hospital, PA

**Hirsch, Denise**  
Mt. Auburn Hospital, MA

**Ingalls, Robin**  
University Hospital, MA

**Isselbacher, Eric**  
Massachusetts General Hospital

**Kales, Stephen**  
Cambridge Hospital, MA

**Klickstein, Lloyd**  
Brigham & Women's Hospital, MA

**Konrad-Rastegar, Joan**  
Mt. Auburn Hospital, MA  
(preliminary medicine)

**Kujovich, Jody**  
Hospital of the University of Pennsylvania

**Lapuerta, Pablo**  
North Carolina Memorial/Chapel Hill

**Levy, Joanne**  
Brigham & Women's Hospital, MA

**Liccini, R. Paul**  
Massachusetts General Hospital

**Marshall, Frederick**  
Baystate Medical Center, MA

**Massaro, Anthony**  
Brigham & Women's Hospital, MA

**Meigs, James**  
Massachusetts General Hospital

**Miller, Mari**  
Boston City Hospital

**Pak, Peter**  
Massachusetts General Hospital

**Raska, Karel**  
Massachusetts General Hospital

**Retondo, Margaret**  
Boston City Hospital

**Rodriguez, Robert**  
UCLA Medical Center

**Roubideaux, Yvette**  
Brigham & Women's Hospital, MA

**Sheffield, John**  
University of Washington Affiliated, WA

**Silver, Marc**  
Brigham & Women's Hospital, MA

**Smith, Christopher**  
University of Washington Affiliated, WA



**Stein, Amy**  
University of Washington Affiliated, WA

**Terhune, Margaret**  
University of Michigan/Ann Arbor

**Villagomez, Silvia**  
University of California/San Francisco

**White, Linda**  
Hospital of the University of Pennsylvania

**Wurtman, David**  
Mt. Auburn Hospital, MA

## NEUROLOGY

**Agostini, Mark**  
Massachusetts General Hospital

**Kang, Jamie**  
Columbia University, NY

**Marshall, Frederick**  
Baystate Medical Center, MA

**Nachmanoff, Dara**  
Brigham & Women's Hospital, MA

## NEUROSURGERY

**Gleason, P. Langham**  
Brown University, RI

**Harley, Robert**  
Graduate Hospital, PA

**Sathi, Sumeer**  
Brigham & Women's Hospital, MA

**Starr, Philip**  
Brigham & Women's Hospital, MA

## OB/GYN

**Dunson, Shelley**  
Emory University School of Medicine, GA

**Janicek, Michael**  
Johns Hopkins Hospital, MD

**Yao, Yvonne**  
University Health Center, PA

**York, Carey**  
Brigham & Women's Hospital, MA

## OPHTHALMOLOGY

**Connolly, Susan**  
Johns Hopkins/Wilmer Institute, MD

**Ferrone, Philip**  
Duke University, NC





**Godley, Bernard**  
University of Iowa

**Mai, Christopher**  
White Memorial Hospital, CA

**Margolis, Thomas**  
Jefferson University/Wills Eye Hospital, PA

**Mattern, Ruth**  
University of Rochester, NY

## ORTHOPEDICS

**Alpert, Scott**  
Hospital for Joint Diseases, NY

**Aronow, Michael**  
University of Massachusetts Coordinated  
Programs, MA

**Corsetti, John**  
Hospital of the University of Pennsylvania

**Grottkau, Brian**  
Harvard Combined Program, MA

**Lincoln, Todd**  
University of California/San Diego

**O'Donnell, Richard**  
Harvard Combined Program, MA

**Thornburg, Lacy**  
University of Iowa Hospitals

**Young, Hayward**  
Mt. Sinai Hospital, NY

## OTOLARYNGOLOGY

**Chang, Ching-Yen (Joe)**  
University of California/San Francisco

## PATHOLOGY

**Renshaw, Andrew**  
Brigham & Women's Hospital, MA

**Stein, Lincoln**  
Brigham & Women's Hospital, MA

## PEDIATRICS

**Epstein, Michael**  
Children's Hospital, MA

**Goldstein, Richard**  
Children's Hospital, MA

**Helfand, Rita**  
Children's Hospital, MA

**Heymann, S. Jody**  
Children's Hospital, MA

**Jayasuriya, Anula**  
Children's Hospital, MA

**Kinnane, Janet**  
Children's Hospital, MA

**Lozano, Paula**  
University of Washington Affiliated, WA

**Mandl, Kenneth**  
Children's Hospital, MA

**Meyerson, Sandra**  
Massachusetts General Hospital

**Selden, Richard**  
Massachusetts General Hospital

**Smith, Victoria**  
Children's Hospital, CA

**Spain, Jacqueline**  
Children's Hospital, MA

**Upshaw, Guy**  
Children's Hospital, CA

**Wilson, Kim**  
Children's Hospital, MA

## PHYSICAL REHABILITATION

**Brown, Theodore**  
University of Washington Affiliated, WA

**Yien, Karin**  
University of California/Irvine

## PSYCHIATRY

**Carter, William**  
McLean Hospital, MA

**Ellen, Stephen**  
Cambridge Hospital, MA

**Goodman, Daniel**  
New York Hospital

**Iwamoto, Satori**  
Cambridge Hospital, MA

**Kreger, David**  
Framingham Union Hospital, MA

**Quintero, Enid-Noemi**  
Walter Reed Army Medical Center, DC

**Wallis, Christopher**  
University of California/San Francisco

**Wang, Philip**  
Beth Israel Hospital, MA

**Young, Alexander**  
UCLA Neuropsychiatric Institute

## RADIATION ONCOLOGY

**Shafman, Timothy**  
Joint Center for Radiation Therapy, MA

**Short, Letitia**  
Joint Center for Radiation Therapy, MA

**Yates, Barbara**  
University of California/ San Francisco

## RADIOLOGY

**Caravella, Bettyann**  
New York Hospital

**Chai, Jessie**  
Duke University Medical Center, NC

**Cohn, M. James**  
University of California/ Irvine

**Farria, Dione**  
UCLA Medical Center

**Fischbein, Nancy**  
University of California/ San Francisco

**Goldszmidt, Jeannete**  
Thomas Jefferson University, PA

**Lentz, Daniel**  
Stanford University Hospital, CA

**Mok, Pamela**  
Brigham & Women's Hospital, MA

**Neitlich, Jeffrey**  
Yale-New Haven Hospital, CT

**Perlmutter, Michael**  
Beth Israel Hospital, MA

**Sorenson, A. Gregory**  
Massachusetts General Hospital

**Stewart, Heather**  
University of Massachusetts Hospital

**Zambuto, Domenic**  
Massachusetts General Hospital

## SURGERY

**Aklog, Lishan**  
Brigham & Women's Hospital, MA

**Austin, Richard**  
University of California/ San Francisco

**Armfield, Richard**  
Letterman Army Medical Center, CA





**Birkmeyer, John**  
Dartmouth/Hitchcock Medical Center, NH

**Connolly, Andrew**  
University of California/San Francisco

**Gorlick, Neal**  
Massachusetts General Hospital

**Johnson, Christopher**  
University of California/San Francisco  
(preliminary surgery)

**Londo, David**  
University of California/San Diego

**Mattei, Peter**  
Johns Hopkins Hospital, MD



**Paige, Keith**  
Massachusetts General Hospital

**Rodgers, William (Blake)**  
Massachusetts General Hospital

**Seidel, Steven**  
University of Michigan/Ann Arbor

**Thistlethwaite, Patricia**  
Massachusetts General Hospital

**Thompson, Rupert**  
Long Island Jewish Hospital, NY

## TRANSITIONAL

**Rodriguez, Richard**  
University of Hawaii Integrated Programs

## UROLOGY

**Barnes, Nathaniel**  
Duke University Medical Center, NC

**Rubenstein, Sidney**  
Brigham & Women's Hospital, MA □

## New Track for Academic Advancement Recognizes Teaching

The first appointment is expected to be made this spring to the new teacher-clinician track for academic advancement at HMS. Recommended by the Committee of Professors in June 1988, the new track is designed to recognize full-time faculty for excellence in teaching, which has been less emphasized in the past than research, and to encourage national leadership in teaching and medical education.

There are now four ladders for faculty appointments at HMS: the laboratory investigator, clinical investigator and teacher-clinician tracks for full-time faculty; and a track for part-time clinicians.

The teacher-clinician track is intended to be a "rigorous ladder for professional advancement with criteria and standards equivalent to those in the laboratory and clinical investigator tracks," according to the approved proposal. The idea for the new track was first suggested in 1987 by Eugene Braunwald, chief of medicine at Beth Israel and Brigham and Women's hos-

pitals, and John Potts, chief of medicine at Massachusetts General Hospital. They pointed out in a letter to the dean that a gap existed in the system of appointments and titles. Outstanding full-time clinical teachers who did not have the time or opportunity to carry out laboratory research, but who were making significant original contributions, were not being recognized. Many distinguished faculty remained at an instructor or assistant professor level for decades.

A committee was appointed to develop a proposal, which was subsequently approved by the Conference of Department Heads, the Faculty Council and, in June 1988, the Committee of Professors. "The perception of the need for this track was so widespread that the proposal ran into a minimum of difficulty," says Eleanor G. Shore '55, associate dean for faculty affairs.

Promotion in the teacher-clinician track will be based on demonstrated excellence in teaching, with progressive emphasis on the development of new curricula, teaching methods, materials and evaluation. There is also an expectation of continued publication of analytic clinical studies, comprehensive clinical reviews, and/or textbooks or chapters. Advancement up the ranks to full professor requires a widening sphere of influence and recognition from local reputation to national distinction, says Shore.

Candidates will document their teaching contributions with a "teaching portfolio," to include:

- an annual self-report on teaching efforts
- ratings of teaching effectiveness and comments by students and house-staff
- academic vita, including teaching scholarship
- evidence of teaching leadership in and beyond the department (i.e., school-wide, regional and nationwide)
- educationally relevant publications, including analytic clinical reviews, comprehensive reviews, articles or textbooks; teaching materials developed (e.g., course syllabi, video-tapes, computer software or teaching cases)
- results of departmental peer review of teaching.

A Teacher-Clinician Committee on Education, chaired by Frederick Lovejoy Jr., initially evaluates submitted portfolios and advises department heads on documentation needed. Consideration for appointments then proceeds through the usual faculty appointment committees at the medical school and the governing boards of the university. □



# CAMPAIGN REPORT

## Financial Aid

by Keith Joung '91 and  
Saiya Remmler '92

*"I didn't have a nickel when I started,  
but I didn't owe a penny when I finished."*  
—George Kurland '45

*"I find myself committed to a course of  
at least six more years of training and  
10 to 25 years of loan payments."*  
—Lewis Milrod '85

Changes. Much has been written and said recently about the new directions that Harvard Medical School, ever the leader in medical training, has taken: a

new building, a new curriculum, and, most importantly, an entirely new approach to learning. But as the quotations above clearly illustrate, *other* changes are also occurring at HMS—changes that are equally significant and, unfortunately, most disturbing in their implications.

While all generations of HMS students have had to face the high cost of financing their medical education, today's HMS students encounter some unique challenges. Not only do they face higher costs and larger debts, but the *qualitative* nature of the aid they receive has changed from years past. Two case examples (whose names have been changed by request) best illustrate the financial picture of today's medical students—a reality that causes finances to be the primary determinant in their educational and career decisions.

Max comes from a family with limited financial resources. Because of his large need, Max qualifies for extensive financial aid, consisting of \$17,800 in loans, \$6,650 in scholarship, and income from work. Of his loan money, \$2,000 was in the form of a Supplemental Loan to Students (SLS), with the rest in low-interest Harvard and federal government loans. SLS loans are market rate loans which accrue interest while the student is in school. Repayment of these loans begins 30 days after graduation.

Having already borrowed \$20,000 in loans for his undergraduate education, Max was worried about an excessively high future debt. Therefore, instead of taking out a market rate SLS, he has chosen to work 15 to 20 hours a week. "I don't mind the work," claims Max, "but I sense that I'm not getting as much out of my academics as I could, and sometimes I feel isolated from my classmates because I can't participate in a lot of activities."

Another HMS student facing a similar financial burden is Robin. Robin is a minority student who comes from a family of six children. Both of her parents are over 60 years old. Robin grad-

uated from college in 1988 and entered HMS with a \$10,000 educational loan debt. Her parents have a combined income of less than \$17,000 a year—her father is retired with benefits and her mother runs a day care center out of their home.

Robin's financial aid package consists of \$14,400 in low-interest loans, \$8,400 in Harvard scholarship, \$2,000 in outside scholarship and a summer employment contribution. Understandably, Robin's financial aid package requires no parental contribution. However, Robin keeps her debts a secret. She knows her parents would like to help her even though they cannot.

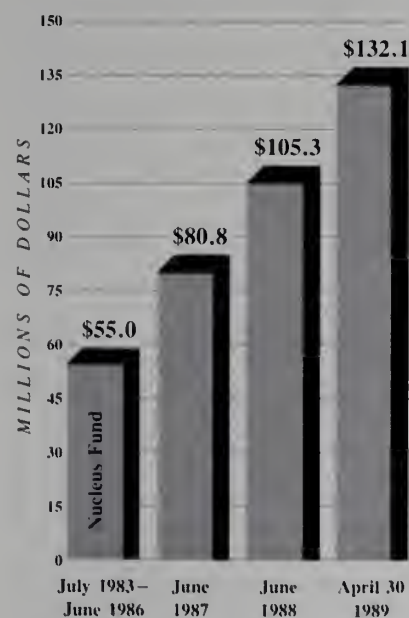
Aside from her finances, Robin is concerned about her future as a physician. She is interested in research, but also feels strongly about returning to an underserved community to work. "There is a lack of understanding in my community of the financial burden, the educational demands and years of training required to become a physician," says Robin. "People expect that I will return after becoming a physician and be able to give them free medical care, and make contributions to churches and charities."

Though this seems to be an unrealistic expectation given the changes in the cost of a medical education, it nonetheless exists. "I am not sure Harvard realizes the situation in which they put students wishing to work in underserved areas," says Robin. "I recognize a responsibility in terms of paying for my education, but I think Harvard takes this to an extreme in terms of how much they expect me to contribute."

As it stands, Robin will have \$1,000 per month in loan payments in her third year of residency, when it is projected that she will be netting about \$1,800 a month (projection for internal medicine).

One might assume that Robin's and Max's cases, while interesting for illustrative purposes, are not terribly representative of today's average HMS stu-

### Campaign for the Third Century of Harvard Medicine



The Campaign reached \$132.1 million in gifts and commitments as of April 30, 1989. The Campaign goal is \$185 million.

dents; such an assumption would be incorrect. The HMS financial aid office projects that financially needy members of the class of 1992 will graduate with typical debts of \$60,000 to \$70,000.

This rising debt is compounded by two additional factors. Costs will continue to rise: the total budgeted cost for second-year students in the class of 1992 is \$31,400. Second, despite the heroic efforts of the financial aid office, stable resources but increasing needs mean that the qualitative nature of the loans will change as loan packages rely increasingly on higher, market rate (instead of low-interest) loans.

Increases in the number of HMS graduates carrying high-principal, high-interest loans will almost certainly prove harmful to HMS itself and the goals it seeks to achieve.

The high potential costs of attending HMS will serve as a deterrent to incoming students. Discouraging candidates of more underprivileged backgrounds from accepting offers of admission will threaten the diversity, and thereby the quality, of future HMS classes. Furthermore, HMS should not allow potential students to be "bought" by other schools offering full or nearly-full scholarships. The ability to assemble a diverse and high quality class of medical students is a Harvard hallmark that should not be lost.

Robin's case illustrates the harsh financial realities that HMS graduates will continue to face. With a projected \$1,000 per month debt repayment, beginning within a year-and-a-half following graduation and continuing for 10 years, it does not seem surprising that many students will choose specialties that will maximize their incomes. Fewer graduates are choosing to work in underprivileged, underserved areas or in specialties with lower financial compensation (e.g., internal medicine, academic medicine). Although the cause of such changes is multi-factorial, high debt seems to be the major factor.

Currently, there are few solutions to these problems. Many students have sacrificed their personal goals in medicine because their areas of interest just were not lucrative enough. For others, the solution has been "moonlighting" during residency training to meet their monthly loan payments. But there are better solutions.

For those who are able to support Harvard's progress, we encourage them to consider endowing a scholarship or a low-interest loan fund. Earmarking donation money specifically for financial aid will help the financial aid office continue to minimize students' future

debt burden in the face of shrinking federal government sources and a finite amount of Harvard loan resources.

We also propose the development of loan-forgiveness programs for students, like Robin, who will commit to serving one year or more in underserved areas or under-represented fields. However, these programs also require funding. Similar programs already exist at Harvard's Law School and Kennedy School and have been invaluable to students wishing to enter less lucrative specialties.

Perhaps Dr. Kurland's ideal of "not owing a penny" can no longer be realistically achieved. However, if we are to avoid the consequences of the high costs of a HMS education, then we need to make important choices about where to allocate resources. □

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*Saiya Remmler '92 is on the Financial Aid Committee and Keith Joung '91 is an MD/PhD candidate who is also concerned about financial aid.*

## BOOK MARKS

### Prison Medicine

*CARE AND PUNISHMENT: THE DILEMMAS OF PRISON MEDICINE.*  
by Curtis Prout and Robert N. Ross.  
University of Pittsburgh Press.  
Pittsburgh. 1988.

by John D. Stoeckle

*Crimes will be committed; criminals will be incarcerated; and while in jail and prisons, prisoners will often get sick or will suffer exacerbations of illnesses they already had. . . . Because the state, municipality, or federal government assumes responsibility for the welfare of inmates whose personal liberty they have taken away, representatives of government are obligated to provide or find adequate medical care.* (p. 256)

When health care in society is discussed today, the themes are that it is too costly, that medical practice is more competitive and regulated, that its quality is uneven, that its practitioners have been deprofessionalized as employees in corporate groups, and that many of the 250 million Americans do not have access to health care.

*Care and Punishment* is also about care in society, but its themes are not quite the same. It is about a tiny and isolated .2 percent of Americans "under a bell jar," whom the public and the medical profession have always kept out

of sight, often out of mind and have hardly ever discussed: 500,000 prisoners, the bad guys and gals warehoused in our 5,000 prisons and jails for running afoul of the law.

Potential readers may then wonder why this volume by Curtis Prout—internist, assistant dean for student affairs at Harvard Medical School, and chairman of the Massachusetts Medical Society's Committee on Health Care in Corrections—and his writer-colleague Robert N. Ross deserves attention. The book's subjects—a deviant population of crooks, murderers, rapists and drug dealers in these remote, out-of-the-way institutions—are not one of us. Our health policy experts would argue that health services for mass society demand our full, exclusive attention. Prisons and prisoners are outside our clinical gaze. Few of us have ever treated an inmate, and fewer still have been inside the gates. Only 5,000 MDs do prison care, mostly part time; 50,000 RNs, NPs and PAs provide most of the care.

Moral judgments aside, this book on prison health care contains issues about the improvement of care and treatment that are relevant to our larger system of health services. Caring for perhaps the least desirable person in society, moreover, is central to the profession's values. How can the profession ignore the prisons? Curtis Prout certainly has not. Long active in patient care, advisor of HMS students, and



experienced in the care of young adults behind bars, he is informative and perceptive in his account.

Part 1 of the book reports on the history of prison health care reform in Massachusetts, on two progressive superintendents in the 1930s, on Prout's failure (or success) in the '70s with the Prison Health Project, the success of legal suits in 1979, and on the effect of private contract services. Part 2 is on the nature of the prison environment, the medical problems of inmates, the bureaucratic dynamics of this institution designed more for punishment than care, and the implications of rights and standards.

In common with health services organizations in general are such themes as conflicts over the mixed missions of institutions, power and authority in treatment, the communication of information, the function of professionals in bureaucracies, and changing organizations from inside or outside. The book is also a gold mine of facts and figures about prisoners, prison life, and prison medical practice.

A longer look through the book will note more detailed contents. Chapter 1 on the "cult of personality" argues that charismatic penologists alone cannot sustain reform in the complicated bureaucracy and political system of prisons. The innovative work of Howard Gill in designing the Norfolk Prison Colony for the rehabilitation of the inmate in the 1930s is described in detail. Similar efforts by Miriam Van Waters at Framingham Women's Prison in the 1940s are sketched. These leaders were driven by a "liberal" notion that on-site medical services would contribute to prisoner re-education and training, if only by reducing any burden of illness that might delay the institution's rehabilitation program.

Services were more comprehensive than the emergency care of the past, but did not turn out to be instrumental in the rehabilitation of prisoners' deviant behavior, as even more liberal reformers argued later in the 1971 Madoff report (issued by a committee of the Department of Human Services in response to prison unrest that followed Attica). Both progressive superintendents were ousted (though Van Waters was later reinstated) and their reforms terminated over presumed deficiencies in medical care.

Chapter 2 is on the ups and downs of the Prison Health Project (1972-74) which the author, Curtis Prout, headed. Funded by the Office of Economic Opportunity, the purpose of the project was to develop a model prison health

care program that included designing training for inmates in paramedical work, assessing the drug problem, and planning drug treatment. Constrained to do research rather than to implement change, the project did not meet its goals. The chapter describes the details, dynamics and personalities behind why the project went astray—a mix of uncoordinated efforts, departmental resistance, lack of authority, misdirected mission, and frustrated leadership that the author does not hide.

This research-reorganization project by health professionals—lodged amid the bureaucracies of the Departments of Correction and Public and Mental Health—did not produce change from inside, although it documented the needs of inmates and the deficiencies of services. What followed several years later, however, did move the system from the outside.

Chapter 3 is on the work of lawyers, Scott Lewis and Angel Marcus, who changed the reform rhetoric from needs to prisoners' rights, and the reform tactics from research-administration to legal suits. The state was sued to provide services or, one might say, the departments were demanded to fulfill the mission with which they were charged.

As historians, the authors see in the legal approach a more efficacious reform than the efforts of prison superintendents and their own attempts at reorganization through the Prison Health Project. Law seems better than medicine (or medical administration) in doing good for prison care. By a strong emphasis on specific procedural changes, the law assured prisoners rights for high-standard care. In contrasting this legal success to the failure of the Prison Health Project, the authors do not seem to credit the project with making the definitions of health care standards that were essential for lawyers to take to court to change the system.

Chapter 4 questions the wisdom of using private-contract prison medical services, with its emphasis on cost containment and minimum effective services, a change that has emerged in the 1980s. Chapter 5 is on the environment and 6 on medical disorders. These pages are full of perceptive views and grim clinical facts, including the psychology of living in isolated cells and impairments due to smells, stale air, closed space, noise and dim lights in prisons.

This moving account of inmates in penitentiaries, unlike those of patients in hospitals, contains no illustrative photos. Inside shots are hard to find in real life or prison literature, though outside views are everywhere. Future inmates

pursued by cops are on nightly TV and movies with their underworld scenes of thugs, crooks and dealers. Interested readers wanting to find some inside views would have to look elsewhere, for example, at Frederick Wiseman's *Titticut Follies*, a 1967 film of Bridgewater Prison (banned by the Commonwealth for public viewing, but MDs can see it), or at scenes taken by Ed Beyer for *Alcatraz, the Rock* in that old and empty "pen" that is now a national park.

Surprisingly, prisons can be alternatively very quiet, then noisy beyond tolerance. Despite so many unoccupied hours and with so little privacy, communication with fellow prisoners is, paradoxically, self-restricted. They tend to protect that little remnant of private self that is left. Communication with the doctor is restricted too, as disclosure about one's self or behaviors has many hazards if leaked outside the encounter.

The dynamics of relationships between prisoners and guards, now called correction officers, are thoroughly re-constructed as are those with health professionals, illustrating the change in relationships that occurs in this special world so ambivalently designed for care, punishment and sometimes reform.

These relationships, compounded by fear (powerlessness) and anger as well as attachment, and the everyday work itself, with its contradictory goals, in turn affect the staff. Briefly mentioned is the ultimate contradiction, the prison doctor as executioner (though

■  
Announcing

## CROSSING BOUNDARIES: Biological, Disciplinary, Human

*A. Baird Hastings' lively story  
of medical science in this century;  
also of people who figured in it.*

PREFACE BY  
DEAN DANIEL TOSTESON

■  
Four Corner Press, Grand Rapids MI  
366 pp-\$24 by prepaid order to  
H.C. Christensen, Editor  
8860 Villa LaJolla Dr., Apt. 201  
LaJolla CA 92037



not possible in Massachusetts), severely critiqued by William Curran and Ward Casscells of the Harvard School of Public Health in their essay, "The Ethics of Medical Participation in Capital Punishment by Intravenous Drug Injection" (NEJM 1980, 302:206). Where prison power lies is clear in this text as in that 1967 anti-authoritarian movie, *Cool Hand Luke*, when Paul Newman, as rebellious Luke, falls from the fist of the guard. Yet, like the prisoner, guard and practitioner can suffer too, though in a different way, and, unlike the prisoner, can escape when burned out.

The clinical facts concerning AIDS, VD, seizures, substance abuse, suicide, psychiatric disorders, and violence among prisoners will not surprise most medical readers. That hypertension is rare among prisoners may be new; also that the majority of rapes and assaults are not committed by homosexual but by heterosexual prisoners. Not noted, perhaps because so well known, is the

fact that 40 percent of the population is black. The book properly calls for more clinical research on these medical problems of prisoners for a better understanding of etiology, treatment and prevention. The final chapters review the meaning of rights and standards in care and treatment, and comment on the dilemmas, indeed the limits, of reform.

This stimulating and reflective book, pleasantly devoid of academic jargon and of moralizing about the worth of prisoners and the constituencies around them, should be widely read in and out of medical circles. The issues of reform for this special population are less technologic than organizational and interpersonal, just as they often are for the care of everyone. Readers can quickly make these connections and be moved to appreciate, if not support, the improvement of care in and out of prisons.

But what about the future? Prisons in Massachusetts have been a repeated object of reform; DeTocqueville, for example, visited them in the 1830s and then argued for punishment, not rehabilitation. Today the U.S. prison population is growing some 25,000 per year. Only the jails of South Africa and the Soviet Union have more.

In this decade, reform is no longer a mix of care, punishment and maybe a touch of rehabilitation. Rather, construction is the in thing—more jails and prisons, now built with a podular design to cut the number of guards needed for control and to restrict prisoners' move-

ment. With so many of the guilty, even the "white collared," now confined, this trend in building expansion seems like some health care: very expensive, hardly cost-effective, and certainly not preventive. Perhaps those older attempts at improvement that Prout and Ross so ably review might eventually be worth still another try—with *Care and Punishment* as a guide. □

*John D. Stoeckle '48 is a professor of medicine at Harvard Medical School and chief of medical clinics at Massachusetts General Hospital.*

**Acknowledgements:** Among the HMS faculty and graduates mentioned in *Care and Punishment* are Louis Sieracki, a physician once at Norfolk; Dieter Koch-Weser and George Lamb, Department of Preventive and Social Medicine, who organized HMS students to undertake a survey at Walpole in the 1970s; surgeons from the Boston hospitals, particularly the Massachusetts General Hospital, who went to Norfolk to operate under contract at the prison hospital; an advisory committee from the Harvard School of Public Health, Drs. Hilbert Day, David Edsall, Irving Clarke, E.B. Wilson with Professor Elton Mayo (Harvard Business School) that reviewed the medical division at the Norfolk Prison Colony; and the Brigham medical residents who helped at Walpole in the aftermath of the prison riot in 1973. Unmentioned is the son of penologist Howard Gill, Benjamin Gill '43B, HMS assistant clinical professor of psychiatry. Finally, of course, is Prout himself.

### Facts About Prisons and Prisoners

(as cited in *Care and Punishment*)

- 95 percent of the prison population are young males, and 5 percent, females; a 20:1 ratio also noted in Europe.
- More than 1 million people are sent to jails and prisons each year. The prison population is about 500,000, increasing by 26,600 per year.
- In Massachusetts, the number of persons in mental hospitals and in prisons have been nearly reciprocal (as mental hospital census declines, prison census rises).
- The average cost of housing a person in jail is \$16,000 per year.
- 6 percent of the prison population have hypertension, compared to 20 percent in the general population.
- 75 percent of the male prison population have problems with reading, writing and learning.
- 75 percent of prisoners have histories of alcohol abuse.
- 15 percent of released inmates are back in prison in one year, 26 percent in two years, and 32 percent in 3 years.
- 30 percent of prison population, given free access, will show up for sick call each day.

## COMMENTARY

# Lesson From AIDS

by Ferdinand James Gay

I feel honored and delighted to be able to share my experience of AIDS with my medical colleagues. Rather than stifle my individuality out of fear of offending you, I would rather "tell it like it is" for me.

I am trying to communicate from my heart and the left side of emotion,

rather than from my head and the right side of intellect. It has taken me a long time to progress from being a linear, medical authority, patriarchal-values doctor to a metaphorical, egalitarian, matriarchal-values child psychiatrist, would-be shaman. Here in Los Angeles the New Age finds a few of us doctors looking back to the archaic roots of medicine, to the shamanic heritage for an answer to our dilemmas in the age of AIDS. One answer, of course, is to



know oneself; another is, "physician heal thyself."

I first became involved with our modern plague in 1984 when I heard that two cousins were both suffering from AIDS, each from a separate source. My first feeling was one of guilt and shame that, as a divorced father of three children who had recently entered the gay lifestyle, I had done little to help out in the crisis. I decided to join the Shanti Foundation, which provided counseling and support for AIDS patients here in L.A.

My two intensive weekends of Shanti training represent another turning point in my life. I learned a lot about AIDS and how to become a passive, present listener rather than a controlling, rescuing doctor dealing with a disease that wouldn't submit to our usual techniques of "fixing" and curing. I was especially touched by the Death Meditation—a profound experience in which I felt the bliss of the "other side" that is described in near-death experiences. My experience was similar to reports of people who came back after a car accident or cardiac arrest from near-death, and report observing the situation and experiencing love and a state of bliss. I knew by my experience with the Death Meditation that death is not to be feared and that it is an experience of merging with universal love or the love of God.

I was assigned a total of five clients, one of whom was a friend of an old friend of mine. I ended up sharing myself with all of them as they declined. I went to five or six funerals—most were experiences of relief and love as people came forth to share their feelings. I was privileged to talk to my last client as his soul left his body.

After a year of counseling and service as a member of the board, I left Shanti somewhat emotionally drained and no longer the caretaker-rescuer I once was. With about 10 AIDS conferences under my belt, I tried to introduce some AIDS training as an attending at U.S.C., but met considerable resistance. (They are now finally getting their AIDS ward, modeled after the one at San Francisco General.)

Although I don't work directly with AIDS any more, I feel deeply grateful for my experience during those years. I can handle the illness when it comes up with friends, as I can when it needs to be dealt with at work. I am in touch with people who are living with the HIV virus in various forms. Some are even upbeat, as those in Louise Hay's group who claim they "really started to live" since their diagnosis. It might be hard to understand that healing the

human being doesn't have to include the survival of the physical body.

Questions of hope and futility arise out of the limited perspective of ego-orientation and fear of death. With inner change, such questions melt into a harmony of seeing the bigger picture. Many people, especially in the city, have lost a large number of friends to AIDS. If one believes in reincarnation and the continuity of the soul, the losses become less painful. I have no worry whatsoever about contracting AIDS from a professional situation; I only remind myself to be responsible in my personal life.

*Healing the human being  
doesn't have to include  
the survival of the  
physical body.*

Anybody considering the study of medicine at this time should be prepared to see major changes in the field. Both medicine and society will have to transform themselves in order to deal with the enormous problem of AIDS. But that also suggests that anybody entering medicine should be ready to undergo change themselves. I believe that the depression affecting our profession is like that of any individual confronting a life crisis and having to let go of old ways. The AIDS patient—he who focuses on the quality of life lived in the immediate present—can become a teacher to us all.

I really don't think homophobic and AIDS-phobic physicians should treat

patients with AIDS. It would be a disservice to the emotionally sensitive patient to be exposed to a cold, death-frightened doctor. To those who can learn what they need to and make the changes to treat people with AIDS with love—more power to them.

The only inspiring message I would have for those considering medical training is, Are you ready to assume the responsibility of caring for any and all patients with love and compassion, and are you ready yourself to go through the changes needed to heal yourself in order to become a healer? The ancient Shaman was a wounded healer. How about the modern doctor? Can he face his woundedness?

Those who are able to identify with Christ as a healer and seer and treat the modern lepers are granted unconditional love and compassion, which can spread out to all relationships and help care for other human beings, animals, plants, and the planet Earth itself. As in other challenging areas, this field is not for those with weak egos or weak consciences, or for those who would project their shadows onto scapegoats.

The AIDS patient can teach doctors what love and what healing (making whole) can mean, even in contact with physical death. I believe that AIDS will help foster such a miracle. □

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*Ferdinand James Gay '57 has recently given up his private practice of child and adult psychiatry and is currently a forensic psychiatrist at Los Angeles County Men's Central Jail, the largest jail in the free world. He is actively involved in "personal transformation," which includes an exploration of shamanism, contemplative meditation, and Jungian dream work.*



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1 DEAD, 6 HURT  
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~~Dangerousness~~

## The Ubiquitous Virus of Criminality

by Harry L. Kozol

**V**iolence between persons and between peoples has long been one of the major plagues of mankind. Man's dedication to the extirpation of his fellow man is seemingly ubiquitous. The virus that causes this plague is "dangerousness," a potential in one's character for inflicting grave harm upon others. Identification of the presence of this virus is the sine qua non of prevention and protection. —H.L.K.



# mom held in lover's killing

Family strife pulled trigger, police say

Teen admits accidentally strangling student

Vrdolyak worker victim of robber

# COP KILLED

murderous offenses by people who have been released from prison after serving long sentences. The objective of the mandated treatment was to insure, insofar as possible, that criminals would not repeat offenses nor commit any other dangerous crimes. To the victim, however, there can be no difference between the criminal who kills to rob and the one who kills to rape.

to a special maximum security psychiatric institution established under the jurisdiction of the state's Department of Mental Health, rather than that of correction. The responsibility for determining who should be detained under this law was placed squarely upon psychiatry, as was the responsibility for treatment.

This law initiated a unique sociological experiment, in which the primary jurisdiction of criminal dangerousness was assigned to psychiatry rather than penology. The legislature had identified a potentially lethal societal disorder, raised it to the status of a disease, and sanctified its action by assigning the problem to a highly assertive segment of medicine.

To provide for the clinical and administrative implementation of this law, in 1959 the legislature established the Center for the Diagnosis and Treatment of Sexually Dangerous Persons, within the Bridgewater complex of institutions. I became its director in 1960.

It was clear to me from the beginning that this medicolegal innovation was implicitly based on a concept of preventive medicine. The offender was looked upon as a menace to the health and well-being of potential victims. Accordingly, the law provided that he be quarantined from society by detention, and treated until no longer considered dangerous. The law included no reference to female perpetrators of any class of dangerous behavior.

All communities have witnessed the tragic repetition of vicious and even

**M**y tenure as director of the center began in a quandary: What is this thing called "dangerousness"? The magnitude of the burden I assumed in attempting to implement this new law is not difficult to appreciate. We had neither precepts nor precedents to guide us. The literature of psychiatry was virtually silent on the subject.

This project was not the first divergence from conventional penology. Other jurisdictions, in Europe and the United States, had introduced estimable innovations into their penal systems. But none, to my knowledge, had identified "danger" or "dangerousness" as the critical problem of contemporary penology.

Our responsibility included treatment of our committed patients, reports on the "progress of cure," and an opinion as to whether or not the prisoner was "safe" enough to be conditionally released into the open community. It became clear to me that the awesome responsibility for commitment of a patient, for what might well turn out to be the duration of his life, had to be juxtaposed with the potentially lethal danger to an innocent victim. This dictated the most thorough, intensive and extensive acquisition of information about each patient.

At the inception of my directorship I recognized the need for personnel of exceptional competence and experience, and recruited my wife, Ruth. While a social worker at the Boston Psychopathic Hospital (now called the Massachusetts Mental Health Center), she had originated a *modus operandi* for field investigation of patients' back-

**I**n 1958 the legislature of the Commonwealth of Massachusetts enacted a law to identify, detain and treat "dangerous" sex offenders. The law was in reaction to the murders of two little brothers, ages 10 and 12, by a 21-year-old man who had been released from prison seven weeks before, following seven years of incarceration for the brutal sexual attack and stabbing of a 12-year-old boy. Clearly, seven years of prison had done nothing to eradicate his potential dangerousness.

The combination of sexual assault with near lethal stabbing in the first crime, and double murder in the second, mobilized the legislature. The shocking murders of these two little brothers tragically demonstrated the futility of conventional sentencing practices in coping with lethally dangerous persons. The failure of traditional penal retribution mandated a search for more effective protective measures. Out of its efforts and activities came this dangerous person law.

The legislation provided for the indeterminate detention of convicted sex offenders who had been diagnosed as "dangerous." They would be sentenced

# 2 south suburban teens found slain Widow, 68, loses fight with slayer Berserk student nabbed after fierce gunbattle

ated the "patient" and effected his prompt release.

An exemplary precis illustrates the role of the field investigation within our comprehensive diagnostic study of each case:

*Male, age 31. Crime: Rape of 68-year-old widow five years before. Transferred from state prison for diagnosis to determine whether or not he is a "sexually dangerous person." Completed five years of much longer sentence. Under consideration for parole.*

*Clinical examination interviews by director, staff psychiatrists and psychologists revealed arrogant, demanding individual. He proclaimed that he had been transferred to the center to be "cleared for parole." He would not discuss the crime he had committed, nor any related matters. He was obviously confident of being cleared; and we suspected that his confidence must have come from other sources than routine administrative procedures. He was essentially non-communicative. Nothing in what we observed, nor in what we found in his prison record, could justify a diagnostic opinion that he was not a sexually dangerous person. Accordingly, a field investigation was promptly initiated.*

*Field investigation: Ruth sought out the victim's home; noted a security alarm. Victim spoke through the closed door, manifestly cautious. Ruth identified herself and explained the reason for her visit: to find out more about her assailant, since there was a possibility that he might be released from prison in the near*

*future. The lady then admitted her and the interrogation began.*

*The victim appeared to be healthy and alert, but was troubled by the imminence of her assailant's possible release. She described him as initially polite and well spoken. He had come to inquire if she would rent a room to him. He said he had a job. She did rent a first floor room to him. She dwelt in a small apartment on the second floor. He ingratiated himself by doing an occasional favor for her, such as picking up a newspaper.*

*One day, several weeks later, as she entered her apartment, he suddenly appeared and ordered her to enter her bedroom. When she objected, he grabbed her while she fought back. He struck and subdued her, and raped her while muttering repeatedly, "Die, damn you, die." She put on a robe, and noted that he appeared to be "excited." He then told her that he was not through with her and that he was going to kill her. He described in lascivious detail exactly what he would do. His facial expression and his tone of voice increased her apprehension. She recognized that he was deadly earnest, and strove to placate him. She told him that he did not seem to be feeling well and suggested that she make some coffee for him while he got dressed. He seemed to assent.*

*She entered the kitchen which adjoined her bedroom and, as he started to put his feet into his trousers, darted out a back door and ran into a neighbor's house. The police responded immediately to a call for help and arrested him at the scene. His conviction and sentencing followed.*

On the basis of the field investigation, two months of daily interview-examinations of this man, and studies of correctional data, the staff agreed that the patient was dangerous and would undoubtedly repeat his crime and succeed in killing his victim if he were

grounds. She had continued to hone her formidable investigative skills in counterespionage under a military command in World War II, and later in urban police detection (including the identification and apprehension of Albert DeSalvo, the alleged Boston Strangler).

As a member of the center staff, Ruth completed several hundred field investigations. For each she sought out and interviewed the surviving victims of violent crimes, long after their commission, in cases where parole of the convict was under consideration, in order to get the victim's-eye view of the offender in action. It required delicacy, persistence and tact to persuade these victims to submit to the ordeal of recounting the experience.

This technique elicited significant descriptions of the assault through the eyes and ears of the victim: an ineradicable picture by the only witness to the crime. Over a period of fifteen years, it proved to be our most valuable resource in determining the fitness of patients for conditional release by parole or for less stringent conditions. In a number of cases the field investigation exoner-



released into the community. They diagnosed him as "sexually dangerous" and recommended commitment to the treatment center for the statutory period of one day to life.

At the court hearing, the presiding judge verbally abused the two psychiatrists who appeared to testify on the conclusion of the center and demanded that they have me, the director, change the diagnosis and declare the subject *not* dangerous. The judge was further frustrated by my signed affirmation of the diagnosis and our warning that this man would surely kill, given the chance. I repeated this warning to the judge at a personal meeting in his chambers, witnessed by several others. Three weeks later this petulant judge found the subject *not sexually dangerous* and our "patient" was released.

Five weeks later he was arrested for the brutal rape and murder of another landlady. The medical examiner's description of the grisly details was a blueprint of what he had promised his first victim, as related to Ruth.

In 1976 we terminated our labors at the treatment center. In the course of 16 years we had screened nearly 4,000 arrested and putatively dangerous offenders, of whom we had selected 640 for intensive diagnostic study at the center. We concluded that 385 of these men were "dangerous" and recommended their detention. But some of the involved courts had ignored our advice, and only 354 had been committed for treatment. The others were released, and after a period of nearly five years had a recidivism rate of 39.3 percent.

In the same time frame, 103 patients who had been recommended by us for parole, after an average treatment duration of 47 months, had a recidivism rate of 5.8 percent. Also noteworthy is that of those who had been released against our advice in another time frame, 5 out of 49 patients committed serious assaultive crimes, including one murder.

In 1978, I was appointed senior visiting fellow of the United Nations Social Defense Research Institute in Rome. Ruth was appointed victimologist and research associate. Our work has included a variety of fascinating experiences: bibliographical research studies of the contemporary literature of crime, site visits to penal institutions and judiciary centers in the western world, and ongoing consultations with staff colleagues and visiting representatives of a number of member nations.

Mindful of philosopher Alfred North

Whitehead's injunction that "to talk sense is to talk quantities," it had become clear to me that the indispensable element in any system of criminal justice is a credible method for identification and predictive quantification of the danger potential. These last 10 years my principal task has been to develop a *modus operandi* to do just that. In the near future my definitive *modus operandi* for coping with the universal problem of the lethally dangerous person will be published for members of the United Nations.

I have been concerned with the comparative degree of dangerousness, vis-a-vis the degree of safeness. These polar elements of character are complementary, at opposite extremes of a spectrum, and in a fluid continuum. People cannot be divided into the dangerous and non-dangerous, the bad guys and the good guys. The risk at any point in time is a result of multiple factors.

My method makes it possible to assign a numerical value to the subject's level, or point, of dangerousness on a scale of 1 to 100. It may be expressed numerically or in terms of percentile and presented exponentially on a scale of "danger quotients."

Not all people who inflict serious bodily harm on others do so again. The task is to distinguish between those who will and those who won't.

The terms used in standard psychiatric diagnosis are almost totally irrelevant to the determination of dangerousness. Less than 7 percent of our patients were or had been psychotic according to the accepted use of the term. The incidence of dangerous behavior among the vast numbers of people who fall into the wide category of so-called schizophrenic mental disease is slight, but the presence of severe psychosis in a dangerous person immeasurably compounds the risk that he will do terrible harm.

Dangerousness cannot be attributed to a single factor and is not detectable through routine psychiatric examination. There is no single test for it. I doubt that any tests or methods of examination, in and of themselves, are subtle enough to evaluate the delicate balance between those impulsive elements that lead to dangerous behavior and those self-controlling elements that inhibit it.

The diagnosis of dangerousness is based on inquiry and examinations. There are no rigid criteria of dangerousness; there are only clues gleaned from a meticulous inquiry into multiple aspects of the personality. We developed these clues out of painstaking years of trial and error, in the course of

which we have developed frames of reference for investigation of the personality. Out of these investigations emerged our clinical prediction as to the patient's future behavior.

Of paramount importance is the meticulous description of the actual assault. The potential for violent assaultiveness is the core of our diagnostic problem, and the description of the aggressor in action is often the most valuable single source of information. The patient's version is compared with the victim's version. In many cases we interviewed the victim ourselves. Our most serious errors in diagnosis have been made when we ignored the details in the description of the assault.

The difficulty involved in predicting dangerousness is immeasurably increased when the subject has never before actually performed an assaultive act. This is particularly relevant to involuntary mental hospitalization and to proposals for preventive detention. Who knows how many persons have the same traits as our patients but have never acted out dangerously and never will? No one can predict dangerous behavior in an individual with no history of dangerous acting out.

Since multiple forces and experiences influence the personality, we sought information on themes and experiences in the patient's history. We developed wide frames of reference and lines of inquiry designed to reveal and give in-depth dimension to the structure and dynamic potential of the personality we were studying. In practice, we posed a series of questions to ourselves. These reflected some but not all of our frames of reference and lines of inquiry. They did not constitute a check list, and they were not complete or final. They were suggestions and reminders to *us*—not a questionnaire put to the patient. A series of these questions follows:

#### **With respect to the use of force and violence:**

Was he aggressively and wantonly cruel? Did he enjoy inflicting pain? What was his affect or emotional state at the time he perpetrated his crime? Did he identify with his victim?

Was he angry? With his victim? With whom—or at what? Since when? Was he mad at the world or specifically angry with a person or a class? Was the anger realistic and justified or unrealistic and disproportionate? What was the fate of this anger? Did it persist or evaporate?

Is he cruel toward himself? Does he enjoy suffering? How has he reacted to frustration or delay of satisfaction? With violence? With anger? With both? Must



# FUGITIVE

## Family strife

### Revenge

#### Briton kills 14 in rampage

#### crack blamed

he have immediate satisfaction? Has there been any expression of violence in his drawings, writings, statements, fantasies, dreams?

#### What is subject's view of himself?

How does he feel about what he sees in himself? What is his conception of an ideal person? Whom does he admire? Whom is he for? Who are his heroes? Whose exploits does he applaud? Whom does he tend to imitate in speech and manner?

Whom is he against?

#### What is the subject's view of others?

Are they his potential enemies and he their potential victim? Are they his potential prey?

Are they nonexistent as persons and seen only as objects that he may use or exploit? Does he confuse their identity?

#### How does he relate to others?

Is he a social isolate, either alienated from other persons or never affiliated with them? Does he have sympathetic identification with others?

#### What is his view of his prospects for the future?

Is he optimistic or pessimistic? Is he hopeful or discouraged? Is he depressed?

Does life hold any meaning for him? What?

#### What is his view of himself vis-a-vis the general community?

How has he related to other persons? How has he dealt with authority figures?

Did he have difficulty in school and work adjustments? How does he get along with his peers? Does he feel that he belonged? Or was he a loner? Did he feel dependent on his peers? Did he crave their recognition and respect? Was he concerned about his status in the eyes of others?

Was he embittered? Did he feel frustrated, rejected, discriminated against, deprived, unrecognized, mistreated, abused, in short—victimized? Did he feel threatened and persecuted? Did he have a sense of longing and hunger with a concomitant sense of despair about ever dissipating this hunger?

#### How did he relate to his family?

Was his family constellation meaningful? In what way? Was there conflict with parents? With siblings?

Did the patient feel loved, supported, encouraged by either or both parents? Did he feel threatened, disdained, rejected?

We are interested in the patient's general lifestyle. Was he conventional and socially conformable and responsible, or was he unconventional, irresponsible, and opposed to social standards? We are interested in the nature and amount of control that he asserted in his life-pattern of behavior. Has control

been by repression or sublimation? What has been the result?

There is nothing unique about the content of these diagnostic areas of inquiry. They are familiar to all students of human nature. Our selectivity and emphasis, arrived at by arduous trial and error, are what determined the consistency and uniformity of our diagnostic procedure.

This *modus operandi* dispenses with the need for experts of any persuasion. It can be applied by any literate person in any nation or culture under any established or customary system of law. It is based on the common and universal experience and knowledge of mankind. People recognized their enemies long before there were experts around to tell them whom to be afraid of.

I do not equate dangerousness categorically with contemporary patterns of social remonstrance and violence, although the remonstrants may be perceived as dangerous by target establishments. Individual participants in mass violence may or may not be dangerous depending on whether the motivation is essentially altruistic (based on compassionate identification with others) or egoistic (concerned primarily with venting personal rage).

Rage at oppression has been considered righteous from time immemorial. In the context of history, when the absence of alternatives has engendered desperation, extreme violence resulting in injury to property and persons has been tolerated and even welcomed.

Insistence on violence when alternatives exist and without benevolent regard for the consequences to others is another thing. As history has shown, leaders of great nations may be infinitely more dangerous than the most depraved lone killer. The dynamics are identical; only the scope and magnitude of their crimes are different.

Crime creates its own laboratories. One man's terrorist may be another man's heroist. □

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# AGGRESSION

## *Neural Controls Out of Control*

**T**he study of human aggression, one of the most pressing social problems of our time, potentially bridges fundamental research in evolutionary biology, comparative neuroanatomy, integrative neurophysiology and behavioral neurology. Clearly, broad and diverse approaches are necessary to investigate the many forms of aggression plaguing human relationships.

Unfortunately, investigators are often artificially separated along the outmoded lines of nature versus nurture—some emphasize biological factors while others focus exclusively on social precipitants of violent acts. Although it is fashionable to espouse an integrative viewpoint in examining ag-

gressive behavior, a surprising degree of suspicion separates the community of sociologists studying causes of criminal behavior from the neuroscientists focusing on the phylogeny, anatomy or neurochemistry of aggression.

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by David Bear

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Some would like to bridge the nature-nurture gap simply by suggesting that every aggressive act invariably reflects both environmental and organic factors. However, I suspect that such unceremonious holism would not be a step forward and may even lead to frank errors in understanding some forms of aggression.

On one hand, there are environ-

mental circumstances that provoke individuals with the most normal nervous systems to aggression or homicide. On the other hand are lesions, which may impinge on phylogenetically ancient circuits of the brain and result in aggression in both animals and man, but have no relevant developmental or environmental precipitant.

One source of confusion regarding the interaction of environmental and organic factors is the assumption that neurological impairment results in a generic "organic aggressive syndrome," independent of the location or type of lesion. The organic aggressive syndrome is variously presumed to lower a general threshold for aggression or to result in episodic loss of control with amnesia. These are simplistic and inaccurate pictures which obscure extensive evolutionary, anatomic, and functional distinctions among discrete neurological structures located in the brain stem, limbic lobe or cerebral cortex. Each structure plays a distinct role in the regulation of aggressive behavior.

Every behavior, including the aggressive act, has its neuroanatomy and neurochemistry. Pathology at critical loci or involving particular neurotransmitters can directly affect the control of aggression. While not all aggressive behavior results from organic pathology, we gain insight into both organically and environmentally elicited aggression from knowledge of the functional anatomy of neural circuits regulating aggressive behavior.

The pattern of aggression resulting from lesions to particular structures is best appreciated in "pure culture"—through the study of animals and human beings whose behavior changed after well documented focal neurological injury or stimulation of specific loci. To illustrate this form of analysis, I shall briefly summarize the roles of three structures in regulating aggression: at the level of the brain stem, the hypothalamus; within the limbic lobe, the amygdaloid complex; and within the cerebral hemispheres, the prefrontal granular cortex.

Sensory inputs to the primate hypothalamus come primarily from internal sources: oral cavity, visceral organs such as heart and gut, and the osmotic and hormonal composition of the blood stream. The direct outputs of the hypothalamus are to the autonomic nervous system, the pituitary gland controlling the neuroendocrine system, and to the midbrain and spinal motor centers that elicit stereotypic movements.

In controlling a biological drive such

as feeding, the hypothalamus relies on a hardwired or innate antagonism of excitatory and inhibitory nuclei (push-pull control). These hardwired systems lead to predictable responses, which are not modified by experience.

For example, stimulation of the lateral hypothalamic area initiates feeding in the rat; stimulation of the ventromedial region rapidly terminates eating. High glucose levels stimulate ventromedial neurons, which inhibit the lateral nucleus. Ablation of the lateral area can lead to starvation, whereas chemical destruction or electrical lesion of the ventromedial region results in obesity.

The principle of "on or off" elicitation of stereotypic responses also applies to aggression. Following cortical ablation, stimulation of the posterior lateral hypothalamus of the cat elicits "sham rage," a combination of hissing, hair standing on end, pupil dilation, and extension of the claws—which represent preparation for attack. In the intact brain, stimulation of the posterior lateral hypothalamus will shorten the latency for predatory attack by a cat; stimulation of the medial ventral area will prolong this latency. Attack behavior can be facilitated by injecting the hypothalamus with specific neurotransmitters such as acetylcholine, which will promote biting attacks of a rat upon a mouse or a frog, or of a cat upon a mouse or a rat. Cholinergic blockers will eliminate biting attack, even in naturally aggressive cats or rats.

Several lines of evidence support the role of the hypothalamus and cholinergic pathways in particular forms of human aggression. With an expanding ventromedial hypothalamic neoplasm, a previously docile young woman became indiscriminately aggressive. A child with extensive brain damage due to toxoplasmosis viciously attacked and bit anyone who approached. He denied the intention to bite. During multiple pharmacological trials, his attacks were suppressed only by cholinergic antagonists. Chemicals increasing the availability of central acetylcholine, such as cholinesterase inhibitors, can precipitate aggression and have possibly contributed to homicides.

In contrast to the hypothalamus, the amygdaloid complex receives information from multiple cortical sensory systems focused on the external world. In particular, an area of visual cortex within the temporal lobe, which is specialized for object recognition in central vision, projects extensively to the basolateral sector of the amygdala. Pri-



*Cat displaying affectionate behavior . . .*



mary outputs of the amygdala include the extrapyramidal motor system and the hypothalamus. Many observations suggest a fundamental role of the amygdala in relating sensory experiences, such as seeing a particular object, to biological drives such as aggression.

The two limbic structures within the temporal lobe—the amygdala and hippocampus—play a fundamental role in new learning and memory. The amygdala may be particularly relevant for recall of the affective significance of stimuli. Following bilateral removal of the temporal lobes in monkeys, dramatic behavior changes develop, including the eating of junk objects, loss of selectivity in choosing sexual partners, and suppression of fear responses (the Kluver-Bucy syndrome).

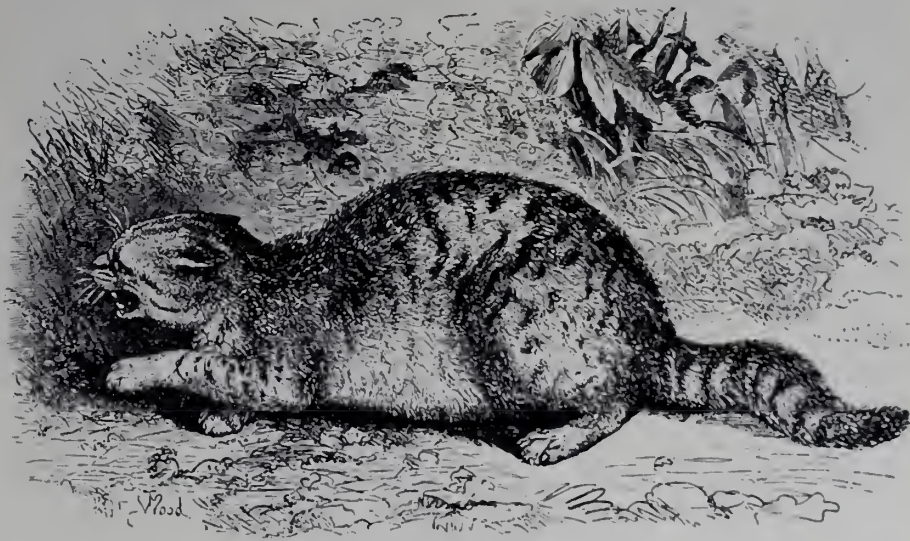
Removal of the amygdala in most monkeys results in taming and placidity. However, amygdalectomy in submissive monkeys has led to a maintained or increased level of aggression. This suggests that the fundamental effect of amygdalectomy is not quantitative change, but a modification of the previously acquired pattern of linking stimuli with aggressive responses. For example, when the brain's two hemispheres have been disconnected, unilateral amygdalectomy results in taming only to stimuli presented to the operated hemisphere.

In humans, bilateral temporal lobe damage has led to aspects of the Kluver-Bucy syndrome, including the loss of aggressive responses. A far more common clinical syndrome is the class of conditions termed temporal lobe epilepsy, in which abnormal neuronal excitability frequently develops within temporolimbic structures. Patients are rarely aggressive during individual, complex partial seizures.

More recent study, however, has focused on interictal (between seizures) behavior of patients with a temporal lobe focus. An "interictal behavior syndrome" of temporal lobe epilepsy has been described, which includes deepening of many emotions, a sensitivity to moral issues, often with religious and philosophical preoccupation, and a tendency to write about these subjects at length. Such patients may be specially sensitive to slights or violations of principle, and experience intense anger. Strong moral and philosophical beliefs often preclude violent acts, but if the patient does act aggressively, his behavior is performed in clear consciousness and is often followed by sincere regret. Patients whose epileptic foci are lateralized to the nondominant hemisphere may attribute aggression to an "alternative personality."

The prefrontal cortex receives extensive afferents from multiple neocortical association areas. There are dense connections with the inferior parietal lobule, an area of the primate brain involved in surveying extrapersonal space for relevant stimuli. Projections from the hypothalamus via the dorsal medial nucleus of the thalamus and from temporal limbic structures via the uncinate fasciculus potentially inform the frontal lobe of both internal and external stimuli of affective significance.

Direct outputs include the pyramidal motor system, the extrapyramidal motor system, and the hypothalamus. Schematically, the prefrontal cortex appears to integrate a current account of the outside world, the state of the internal milieu, and the appearance of drive-relevant stimuli in the light of pre-



*... and aggressive behavior.*

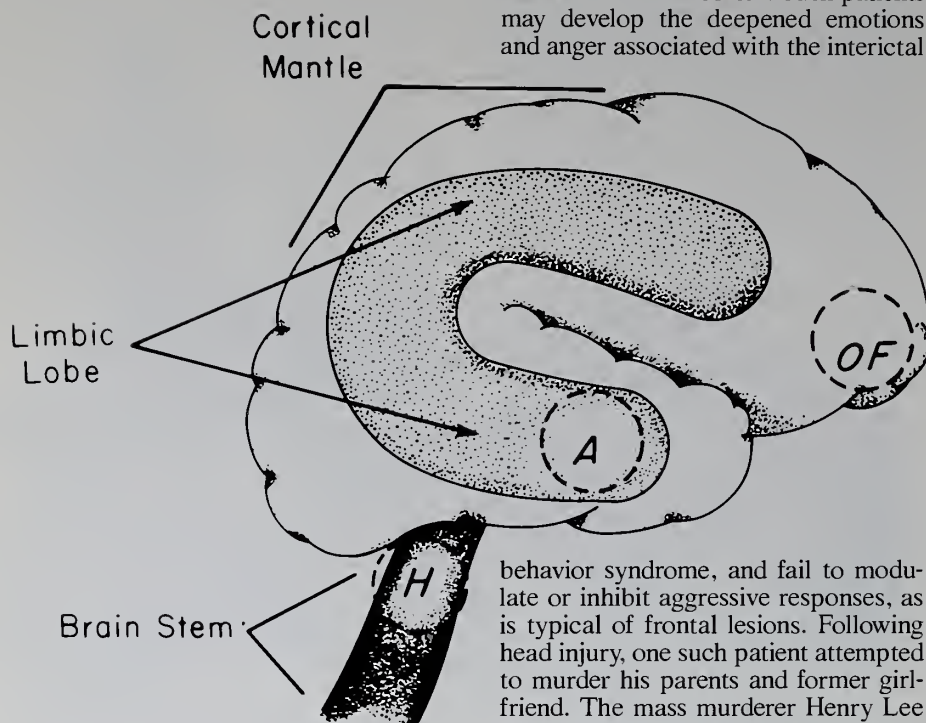
vious experiences relating to biological drives. The frontal lobe constructs an appropriate behavioral plan, which is consistent with experience and especially the rules of socialization, in order to optimize satisfaction of the biologic drives. The simplest summary of these complex functions in man is "judgment."

In humans, damage to the dorsal convexity of the frontal lobe results in an absence of long-term planning behavior—a state of apathy or loss of independence. By contrast, damage to the orbital undersurface frequently results in superficial, reflexive emotional responses outside the usual social controls.

Orbital frontal lesions in humans frequently lead to episodes of transient irritability. Generally, such a patient strikes out quickly after temporary and often trivial provocation. There is little consideration of the social rules limiting aggressive behavior or the consequences of impulsive outbursts. For

example, a young mother with extensive frontal lobe damage became irritated when her young son cried. She then abruptly burned his arms with a cigarette butt. Moments later she denied any anger and was relatively unconcerned by the pain and injury she had caused.

Some processes impair multiple levels of circuitry. Head trauma commonly results in both a temporolimbic epileptic focus and structural contusion of the orbital frontal cortex. Such patients may develop the deepened emotions and anger associated with the interictal



There is a hierarchical control of aggression in the human brain. The three gross levels of organization are: the brain stem (diencephalon, midbrain, pons, medulla), the limbic lobe (amygdala, hippocampus, cingulate, septal complex), and the cortical mantle (neocortex of frontal, temporal, parietal, and occipital lobes). Each level contains interneurons regulating aggression and related biological drives.

behavior syndrome, and fail to modulate or inhibit aggressive responses, as is typical of frontal lesions. Following head injury, one such patient attempted to murder his parents and former girlfriend. The mass murderer Henry Lee Lukas has radiologically documented lesions of temporal and frontal areas.

The perspective of multiple hierarchical neural controls over aggression may enhance our ability to understand, predict and control human violence. But I am aware of the many simplifications, qualifications and limitations involved in explaining this viewpoint. The examples of aggression described above clearly developed *de novo* after unambiguous brain lesions.

The three particular anatomical structures and one neurotransmitter system I chose merely hint at the range of structures and neurotransmitters potentially involved in aggressive behavior. One cannot reduce the human brain—and much less a living being with a complex interpersonal history—to the operation of selected neuronal circuits.

It is certainly not my suggestion that all human aggression has a primary organic or structural basis. Rather, I hope that an anatomical-physiological analysis may clarify the nature of inter-

actions among environment, learning and neural structure at various levels of the nervous system.

The hypothalamus may differ little in anatomy or neurochemistry across many mammalian species, and it does not appear to be modifiable by experience. On the other hand, afferents to the primate amygdala diverge extensively between the rat and higher primates. The temporolimbic structures are critically involved in learning, on the basis of experience, specific aggressive associations.

The prefrontal association cortex is perhaps the most uniquely human region of the brain, occupying roughly seven times the volume in our brain compared to our nearest living ancestor, the chimpanzee. This heterogeneous structure must incorporate, over many years of painful development, the complex and often conflicting social generalizations regarding appropriate expression of emotions, such as anger. The availability of appropriate environmental models for impulse control is thus as essential to the successful operation of the adult frontal lobe as its complement of neurotransmitters.

To build a bridge between organic and functional factors in human aggression, I suspect we must refine the description of characteristic aggressive syndromes which are unambiguously linked to focal lesions. A complementary strategy would be to examine aggressive individuals for subtle impairment of such structures as the hypothalamus, amygdala or frontal cortex. These limbic-related areas are not well assessed by the traditional neurologic examination, lumbar puncture or routine electroencephalogram.

In all likelihood, we will need to develop new measures. Future studies might include neuropsychological instruments with localizing ability; provocative autonomic and neuroendocrine measures; controlled quantitative studies of structural variations visualized by computerized tomography or magnetic resonance; and metabolic imaging—utilizing such technologies as subtractive positron emission tomography—of critical stages in sensory-emotional processing. It is my belief that the most successful approach to human aggression will integrate anatomic, physiological and neurochemical insights with the many relevant observations unique to human psychology and sociology. □

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A black and white photograph of two men standing side-by-side, smiling and clapping their hands. The man on the left is wearing a light-colored short-sleeved shirt and dark trousers. The man on the right is wearing a light-colored short-sleeved shirt, a dark tie, and glasses. They are standing in front of a dark background with vertical architectural elements.

# TRIUMPH OVER TORTURE

Against All Odds

by Albert Crum

What I call the Triumphant Person is an adult who has suffered overwhelming, excruciating, catastrophic experiences or devastating losses, and who goes on to become stronger, more creative, and more contributing than before. They might be expected to be at the highest risk for post traumatic stress disorder, or to suffer stress-related illnesses, or to simply die or become creatively impaired for life. But the crisis—instead of causing chronic illness, death or a permanent impediment in their lives—seems to become an enhancement to them. Somehow the injuries they suffer, the crises they experience, become an opportunity for the betterment of their growth and development.

This article focuses on Tenzin Choedrak, chief physician for His Holiness the Dalai Lama XIV of Tibet. It is one of a series I am writing on world

1988, during his visits to my home/office in Brooklyn Heights. We were aided by three different translators: Namlha Taklha, sister-in-law of His Holiness the Dalai Lama XIV, who was then executive director of the Tibetan Medical Institute in Dharamsala, India; Namgyal Khorku; and Tinley Nyandak, U.S. press representative of the Dalai Lama. In preparation for my first interview, I studied various press reports, as well as John Avedon's highly regarded book, *In Exile from the Land of Snows*, an account of Tibet since the Chinese invasion.

Tenzin Choedrak is a 66-year-old physician trained in Tibetan medicine. He was promoted to chief physician of His Holiness the Dalai Lama of Tibet in 1957, and beginning in 1959, was taken prisoner by the Communist Chinese. He remained in their various

Choedrak was in the best position to know intimate details about the Dalai Lama's personal life. If the doctor could be forced into denouncing him, the Communists would have an invaluable propaganda tool to mitigate or destroy His Holiness's influence in Tibet.

They urgently needed to break the doctor's spirit and force him to make some kind of discrediting or false statements. What they had not been able to obtain by physical repression, they hoped to achieve by such a psychological victory. Resisting their will and torture procedures would prove to be a superhuman feat.

Of the very elite group of 76 who were especially targeted by the Chinese Communists for imprisonment in the infamous Jiuzhen Prison inside of China (part of the prison system that *Time* magazine referred to as the "Black Hole" in 1949), the most prominent was Choedrak, their "prize criminal." Of the original 76 who were sent from Tibet to China, only three others survive to this day.

A brief description of Choedrak's incarceration from 1959 to 1980: His first year in a Chinese prison inside of Tibet, in 1959, was the most brutal physically. He survived four *thamzing* sessions. *Thamzing*, loosely translated, means "struggle." These were publicly conducted sessions, during which the prisoner was to struggle with his reactionary attitude. They were in fact horrendous torture sessions, which involved physical and mental brutality so severe that it taxes human imagination. Choedrak was also placed in solitary confinement in between beatings, in a chain device with links that automatically tightened around his neck, hands and legs whenever he tried to move. Most prisoners were killed at this stage or bent to the will of their captors.

The physical component of the *thamzing* session involved an excruciatingly painful torture that the Chinese had perfected and used viciously. They placed ropes around and under the subject's shoulder joints and suddenly pulled them in such a way that the shoulder joints were pulled and twisted in their sockets. The jerk and twist was fast and traumatic. It created a crescendo of pain, like an electric fire going through the body, producing loss of



figures who have had or are experiencing major and prolonged catastrophes, but who suffer minimal physical consequence and relatively few signs of post traumatic stress disorder (PTSD). By sharing their coping skills, it is hoped that we can learn more about human survival and about the characteristics that permitted them to transcend the ordinary physical and psychological limits.

The interviews with Choedrak took place from June 24, 1987 to May 1,

*On preceding page, Tenzin Choedrak, survivor of 21 years in Chinese prisons, meets Albert Crum.*

prisons for 21 years, 17 of which his survival was endangered daily. He was finally released in 1980.

Namlha Taklha related that Mao Zedong and the Communist Chinese leadership had had an unwavering desire to make an example of Choedrak in order to discredit His Holiness. Since Choedrak was chief physician both to His Holiness and the mother of His Holiness, the Chinese regime wanted Choedrak to denounce publicly these two illustrious patients in order to achieve a propaganda and psychological victory over the Tibetan people. The Chinese Communists felt that as His Holiness's personal physician

Dr. Albert Crum is writing this article from the perspective of a clinical practitioner of psychiatry with the ability to diagnose post traumatic stress disorder. He is not familiar with other aspects of Tibetan medicine or their value and applicability to Western procedures. Copyright © Albert Crum, MD 1989





bladder and bowel control and consciousness. Occasionally the subject's shoulder joint was pulled out of its socket and the ligaments and tendons ruptured irreparably.

What Choedrak recalls as the most severe discomfort, however, was not the physical pain of bruises, to which he said the body gradually becomes numbed. It was that the fluid balance of the body becomes so disturbed by trauma that the thirst for water becomes unbearable. Such thirst can produce a psychosis. During our meals together, I could not help noticing the special care and diligence with which he drank his water.

Those who successfully resisted *thamzing* were sent to China's infamous Jiuzhen Prison, where the doctor spent from 1959 to 1962. Sophisticated psychological tortures were applied, including starvation and unrelenting attempts at his "re-education" through the *Red Book* of Mao Zedong. The doctor was spied upon constantly during the "study periods." He countered this by silently reciting a mantra (prayer) for every letter in the *Red Book*.

During this period, the prisoners were forced to eat worms from their own excrement to survive. Starvation within and without the prison was rampant and some Chinese were imprisoned for cannibalism. Choedrak consumed his own leather jacket bit by bit in order to survive.

In 1962, still unbroken, he was returned to Tibet to the notorious Drapchi Prison, where he remained until 1965, thence to Sangyip Prison until 1972, and to Yidutu Prison until 1976. At

that time one of the Chinese physicians needed help for a personal medical matter, and Choedrak helped him. During the last four years of his prison sentence, he was permitted to resume his duties as a physician for Tibetans at Utitu Prison.

Choedrak's release from prison in 1980 came about when the Chinese authorities wished to communicate with His Holiness the Dalai Lama, who was in exile in India. When an envoy came to Lhasa, Tibet that year, he discovered Choedrak (whom he reported to have looked "half dead") and immediately made a special high request to permit him to leave Tibet. This request was granted, whereupon Choedrak at long last was reunited with the Tibetan community in India.

When Choedrak first arrived at our home/office in Brooklyn Heights he was greeted at the door by Naomi Christman, one of my co-workers. Fresh from reading about his ordeals, I expected to see a classic case of PTSD. But in announcing him by intercom, Christman, who usually gives an initial impression, said: "What an amazing spirit; what a peaceful, serene individual." I was surprised.

In advance of our first meeting with Choedrak, I was already deeply moved by what I had read. He had faced all manner of uncertainties, including the likelihood of death, on a daily basis. I expected to see evidence of emotional scars imprinted on his personality. The long ordeal he suffered is unique in the magnitude and duration of its cruelty, and his ability to endure it appeared near superhuman.

I delved into his personal and family background. Choedrak was born prematurely at seven months and lost his mother shortly after birth. He was nurtured by his grandmother, who devoted much attention to the infant. She nursed him with yak milk fed from a horn with a special skin nipple. Although his grandmother had 12 children of her own, she felt very protective of young Choedrak. He states, "She felt sorry for me because she thought that something was wrong with me." She was "kind, hospitable and generous."

Of himself in his early years, Choedrak said, "I was slow and indistinct of speech. . . . I liked to get off by myself and build monasteries out of rocks and pebbles like an American child plays with blocks. When I was 10 years old I was sent to Chode Monastery, a day's journey from my home by foot. I felt happy when I was told I was going to the monastery. . . . There were 70 monks and about 30 students." He was semi-mute, but "At age 13 I began to speak clearly."

A cousin of Choedrak's mother had been senior tutor to His Holiness the Dalai Lama. His father was a farmer. When Choedrak's father remarried, his stepmother was not as friendly to him and his only brother. She bore eight new children from the marriage.

His grandmother, believing that the very best place for him to be reared would be a monastery, permitted him to go into the monastery when he was 10 years old. Thereafter, the course of his life progressed in accordance with life in a Tibetan monastery, where he became a monk, then a lama, and after-



ward studied Tibetan medicine and became a physician.

An early dream he had before entering medical training was considered significant: "I dreamed that I was playing the Tibetan flute . . . that many people poured into the monastery because of my playing . . . and I was told that this was an omen, that some day I would make great contributions."

The doctor had a capacity for dedication and resolution, which did not become apparent until his major crisis. All those years of quiescence, he was building an internal resolution, an internal commitment, that would be tested in the most extreme circumstances.

At first sight of Choedrak, the physical signs of brutality and torture he had suffered were evident. His face is slightly asymmetrical. His teeth had been knocked out and replaced with false ones, and his left eye disfigured by direct and repeated blows on and around the face. He is clinically blind in that eye. Yet his manner was indeed tranquil, and his smile warm, inclusive and radiant. At certain times during that initial meeting his face would light up and his eyes sparkle.

In addition to the warmth, joy and inner peace that emanated from his eyes, the touch of his hands impressed me. Our hands first came together in an informal hand shake, and somehow we unself-consciously maintained that hand contact for several lingering seconds. The touch of his hand was unusually soft.

Reviewing his ordeals in my thoughts and observing his serenity, the first association that came to mind was St. Ste-

phen the Apostle, another human being who had been made to suffer for his beliefs and for his leader.

I could hardly wait until our interview got underway. I wanted to understand those qualities that would enable a human being to triumph over such prolonged adversity. Not only would I be better able to help others with lessons from a living example, but I could learn insights from an Eastern tradition and share them with the West.

From my training in American medicine and practice in behavioral science and psychiatry, I was in the habit of associating PTSD with individuals who had been extremely tortured in body and mind. Such patients characteristically suffer a number of symptoms, notably that they constantly "relive" the original trauma, either in waking ruminations or in nightmares. Sometimes an ordinary event—a noise, a facial expression—may irrationally be associated with the original trauma, and trigger a sudden sense of certainty that the trauma is happening all over again with all of its original terror. Some patients withdraw from the world, sleep poorly, are easily startled, and suffer the exhaustion and anxiety of being constantly hypervigilant, watchful and suspicious. Many such patients, having come through life-threatening experiences, also feel guilty about having survived, when others were not so fortunate. The latter is a common finding among veterans of the Vietnam War or victims of the concentration camps who have PTSD.

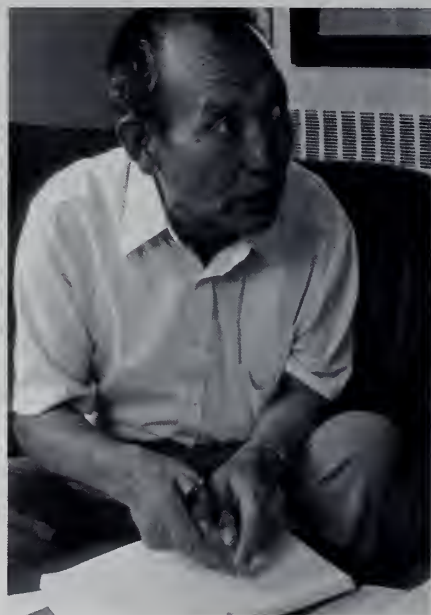
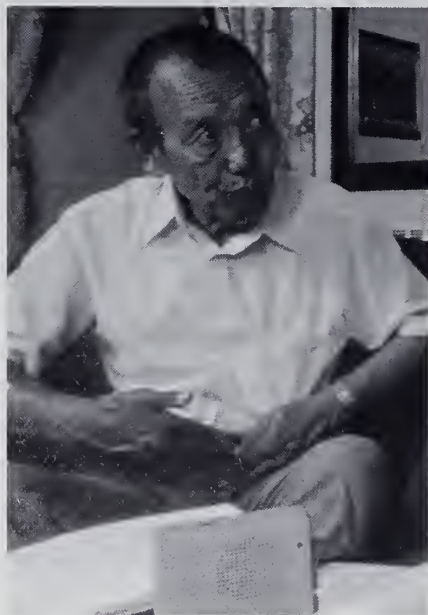
In talking with Choedrak, however, I saw no such signs and symptoms. All

the same, I felt they would surely emerge as the interview developed.

I proceeded to question the doctor in detail. He has no nightmares at present, and he reported only two significant nightmares since his release in 1980 from Communist imprisonment. He had his first nightmare in 1983 when he was visiting Milan. He was aroused for some unknown reason—some environmental stimulation may have made him feel he was temporarily back in prison—and when he woke he was in a state of acute agitation. This was gradually relieved after he oriented himself. The second nightmare was in 1983. The doctor was very exhausted on a trip to Germany, and he woke with similar fears, but his agitation was not as strong as in Milan.

The interpreter, Namlha Taklha, added that this relatively asymptomatic course is by no means common in Tibetans who have undergone cruelties and deprivations. She explained that her mother, along with many other Tibetans of her acquaintance, had many nightmares after they escaped to India. Only individuals with a high state of spiritual and emotional development like the doctor or other highly developed lamas did not.

Choedrak feels anger on rare occasions, but his personality is mild mannered, humorous and warm, compassionate and insightful. He has not overgeneralized his situation; he could and can discern who were his enemies and who were not. He still becomes upset and tense when in the presence of Chinese authorities, but he is usually comfortable with other Chinese people.





What I choose to term the doctor's "sentinel anxiety" (defined here as a normal alerting anxiety response to various environmental stimulations) is highly functional, specific and short-lived. He has not degenerated into blanket generalizations, although he suffered 21 years of victimization. Feelings of suspicion and distrust have not become significant, pervasive or free floating so as to project hate or distrust toward the world.

There is no grimness, pessimism, gloom and heaviness in his outlook. Many torture victims become so impaired by their torture experience that they develop the same level of hatred that their captors possessed. Even when they are free, they remain imprisoned by the past and thus become an inseparable part of their hated past.

Choedrak works very hard and enjoys his work. He is more productive now than before and has continued activities on behalf of the Tibetan people and others. The reverse is usually true of PTSD victims. For several years after his release, his confidence was low and he felt depressed, and during that period he avoided speaking about his prison experience. Nevertheless, he was reinstated in his position as chief physician to His Holiness three weeks after coming out of prison. In a personal audience with His Holiness the Dalai Lama in Dharamsala, India, on November 20, 1980, the doctor wept with emotion at their long-awaited reunion.

People who suffer PTSD frequently generalize and draw blanket and pervasive conclusions about all people, not just their tormentors. And there are often great unresolved feelings for revenge. Both were absent in Choedrak. His personality is pleasant, engaging and stable, and his mood is even, without wide swings either high or low.

Physically, Choedrak has slightly elevated blood pressure, 130/90, which is not treated with any medication. He has occasional stomach acidity and indigestion. He attributes the gastrointestinal symptoms to the nutritional deprivation he suffered during imprisonment and the vile fare prisoners had to ingest.

He has no physical pain, no headaches. His appetite is healthy, and he reports normal sleeping patterns. There is no hyperalertness or exaggerated startle response, and no constricted affect, no feelings of detachment or estrangement from others.

From his four brutal *thamzing* sessions, his right eardrum is perforated and he is clinically blind in his left eye. He stated that in many of the torture sessions, "the Chinese favored a spe-

cial rubber boot treatment. We prisoners were beaten about the face and most sensitive parts of our body with the rubber heel of a boot. . . . The rubber heel delivered a special kind of sting which was horribly painful." After one such beating he said his head looked like a featureless ball. After torture sessions he would either become unconscious or the pain would seem to merge into a feeling of numbness. Possibly this was an example of his body's creating natural endorphins to reduce pain.

Choedrak lived daily with death and all forms of stress, but he feels his belief system allowed him to interpret the experience in a way that prevented permanent destabilization of his personality or a desire for suicide. The doctor understood that his imprisonment by the Chinese Communists was a finite experience—full of pain and terror, but finite. He did not extend it as anger or grimness toward the whole world. Furthermore, in his belief system, this *in extremis* experience had value.

He has no guilt and no desires for vengeance. These seem to be interrelated. People who are obsessed with vengeance frequently have guilt because they know they would do to the adversary the same thing which they most regret was done to them. They know they would not spare their adversary if the roles were now reversed.

Another form of guilt is created by having survived while others died. Choedrak had profound compassion for those who suffered and died. He was forced to witness many executions and grieved sorely, but he personally did not assume the guilt.

Since his continuing endurance and survival were a discredit to his captors and their regime, how was it that a powerful and brutal regime had spared him, I wondered. His survival could have been interpreted as giving power to him and his cause. The temptation for them to murder him outright must have seemed almost irresistible.

I also had great incentive to learn more about the subtleties of the dynamic process and the critical cue-taking between an aggressor and a victim. On a few occasions early in my career, I had faced the possibility of physical danger at the hands of violent patients, and was personally interested in learning more about survival under such circumstances.

I was aware that either survival or death could result from the nature of that rapid interchange of subliminal feelings. When one person has the

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power of life and death over another, it is often the subtlest of feelings that prevents the outbreak of violence, that breaks the force of the aggressor's fatal blow, or reduces the number of blows to just one less than fatal.

Or the reverse is possible, in that certain feelings can trigger a violent or fatal attack. I have chosen the term "dialogue of feelings" to express the emotional communication, usually non-verbal and subliminal, that passes between individuals. Here the dialogue of feelings was between an aggressor and a victim or intended victim. The victim, without a material means of defense, was armed only with certain feelings or their absence to protect himself from a fatal onslaught. Among the protective feelings are sincerity, directness, intensity and honesty, together with the *absence* of other excitatory feelings, namely, anxiety, fear and inappropriate guilt that could be fatal. Even experiencing a short ordeal gives one an appreciation of the great significance of Choedrak's prolonged ordeals.

"How was it possible for you to survive 21 years of daily life-endangering situations?" I wanted to know. "What was it that reduced or weakened the fatal blows of your captors so that you are here with us today?"

Choedrak put his right hand on his chin. He paused and seemed to turn deeply within himself. When he spoke it was with quiet energy. He began by addressing four basic points:

First, he quoted a favorite Buddhist saying: "Your enemy is teaching you patience."

In this most adverse of circumstance and dreadful human condition, Choedrak felt "some benefit was being gained and some human greatness was being accomplished." He felt that he was "deriving something important and being improved by this *extreme* experi-



ence." His demeanor and deportment were elevated to more transcendent reactions than anger and revenge. "Any offensiveness or arrogance or gesture to agitate my captors, any attempt to 'have the last word' could have been fatal. . . . On the other hand, being too frightened or begging for mercy also could have been fatal."

Choedrak put this into a clinical framework with an example from Tibetan medicine: "When a patient comes to you in a state of agitation, if you are kind and gentle, the patient will respond to your kindness and gentleness. If the patient's 'wind energy' (roughly equivalent to level of anxiety or agitation) is already disturbed, and the doctor is harsh and severe, then the patient's wind energy becomes even more disturbed. If the wind energy disturbance is in your aggressor, your attitude, as manifested in the wind energy *you* emanate, can produce either more agitation and danger or lessen the agitation and danger. . . . It is very important to have a tranquil wind energy."

Choedrak's next point was related to his feelings about people in general. "One maintains a degree of dignity while respecting the dignity of another. Remember, your enemy is one who has within him the seeds of obtaining Buddhahood." I realized that the implication of Choedrak's reasoning was far-reaching and inclusive: By focusing on

held in common: "The enemy was human like myself, and I believed that the enemy had the seeds of obtaining Buddhahood." His sincere ability, even in moments of terror, to appreciate a commonality that united him and his tormentors undoubtedly had a softening effect on his captors.

Instead of seeing the enemy purely as a feared object, the doctor beheld "just another person who was also in adverse circumstances and who would one day have to pay a great price for his cruel deeds." In other words, Choedrak was saying that his captor's mind had been programmed to deny his perceptions of human relatedness by compartmentalizing and "focusing on differences rather than sameness." Choedrak never lost sight of the bond he shared with his fellow humans in this situation. He had incorporated a Buddhist principle: "It is important to realize our sameness as human beings," and "To be human is basic; all the other trappings—education, status, race, religion, orientation—are really secondary to the true bond that should unite people."

The third precept that guided Choedrak and affected the outcome was: "Remember to be humble and to forget about pride." Given his situation, he said, "Pride would have been viewed by my tormentors as a form of arrogance, and arrogance could result in death." In clinical terms, exhibiting pride could have produced certain self-defeating defenses and counter-reactions that frequently escalate tensions and lead to fatality. His calmness and humility obviously defused emotional cataclysms. Arrogance, contempt, scorn, vengeance or pleading or begging could have evoked in his captors just the extra rage-energy they needed to annihilate him. Choedrak never asked for mercy, and his verbal responses to his attackers' accusations were mainly limited to two statements: "Think on the truth," and "Be reasonable."

His last point on this occasion dealt with the propagation of violence. Choedrak said that "hatred and vengeance toward the enemy are the wrong feelings, because violence breeds more violence," and "The enemy is someone you need *not* fear. But when one generates hatred and vengeance, one brings out the captor's agitation, and he is the one in control."

I inquired if these principles came to mind during the *thamzing* sessions?" Choedrak explained that *thamzing* involved physical trauma of such extreme intensity that he was unable to reason. "In that instant, the mind suffered such

shock and the body such physical pain that it was impossible to concentrate."

The concentration and meditation necessary for a "stable mental state" were practiced long before, so that in the emergency one is already prepared. I feel in Western terms this can be better understood if we call them practices in behavioral preparation. They allow the individual to put himself on "hold" as an airplane is put "on automatic pilot," because the mind is prepared long before. The thoughts are not groping, nor made desperate by unpredictable turns of event.

It would thus appear that one of the vital benefits of his meditation and prayer practice is gaining a state of mind whereby he is prepared for adversity—for the existential emergencies of life—and *not* caught off guard. I have seen this practiced in various forms by different leaders. The shock and sting and surprise—the *stress* (or *distress*) response—is greatly reduced or absent.

Hearing Choedrak made me aware that I was listening to lessons in human survival from a most remarkable human being, one who had been put through unbelievable mental and physical torture and who had demonstrated veritable superhuman transcendence over adversity.

People are understandably mystified as to how someone can withstand great and prolonged physical tortures and mental brutalizations, plus constant disorienting and destabilizing uncertainty. Such confusion is reasonable if we only take into account the biological and physical aspects of a human being. However, there are certain characteristics that seem to give the Triumphant Person's physical and mental capabilities a powerful extension.

In Choedrak's case, his sense of high purpose and his belief system were interrelated to and indivisible from his life. These concepts were so well integrated in his being that even the extremes of pain and uncertainty could not minimize their survival value. Many people who, for example, suffer from the prolonged and intense pain of cancer or other illness or from the mental pain of catastrophic disappointments and losses often contemplate ending their lives because life is too painful to go on physically or mentally. Often, they do not find life worth living because they see life as unbearable, untenable and meaningless.

In Choedrak's case, these impediments and crises were transformed into part of his purpose for living, and paradoxically, they gave him renewed energy and determination to live. This concept

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to his attackers' accusations  
were limited to two statements: "Think on the truth,"  
and "Be reasonable."*

the commonality and interrelatedness of the human bond, he was able to reduce his own fear and emotional separateness.

Despite being worlds apart ideologically, with one party being intent on hatred and destruction and the other on caring and human betterment, Choedrak did not assume a self-righteous attitude toward his tormentors. Instead he reflected on that which they





of using crisis for benefit defies our limited understanding of human survival capabilities, especially when we try to understand a person's capability only in terms of his/her physical endowment or other physical criteria.

To give an example of physical limitation, imagine a fawn is being hunted. One can safely say that if the fawn is struck with an arrow, it will weaken, lose blood, etc. If the hunter continues to pursue it and strikes it with another arrow, the fawn becomes weaker. The hunter becomes invigorated, feeling that the kill is near. His expectations are reinforced that soon his appetite will be satisfied as he sees the fawn losing more blood. If he wounds the fawn a third or fourth time, the fawn's death is predictably imminent.

However, something unique occurs to the human capability for survival in someone with a resolved mind. Choedrak vividly illustrates this. You wound the person. You metaphorically strike him with an arrow. By all intents and measures, the person should be dead or dying soon. But he lives, he continues to live and begins to thrive. Instead of becoming weaker, he becomes stronger.

The aggressor strikes him with another arrow and thinks: "Oh surely he will die now; surely he will submit now." But the individual's commitment and strength continues to be augmented and refocused and enhanced. This person's belief system and sense of high purpose incorporates the crisis, which somehow invigorates his being. That gives him the added energy to not only survive, but to triumph.

The person in this epic of survival

and triumph demonstrates a kind of transcendence—transcendence beyond normal human limitations. The limits of one's capabilities become expanded and usual barriers are overcome. This capability for transcendence beyond ordinary physical limits will undoubtedly be better understood as we unravel more of the intricacies of the mind.

The dimension of stress to which we refer in Choedrak's case was so severe, it was capable of permanently distorting the body mentally, physiologically and physically. The degree of survival energy to maintain and restore the body must have been equally formidable. Imagine what synchronicity, integration and level of energy would be needed not only to save a city being ravaged by a storm, but to reverse the storm so it does minimal harm to the city. Each individual has enormous inner sources of survival energy. In the Triumphant Person, however, that energy is maximally utilizable and is an essential element in highly functional survival skills.

An individual's personal need for survival, however great, usually follows certain rules of physical limitation. However strong an individual's personal desire and tenaciousness to live may be, if it is not coupled with the requisite high morale, the individual's life may not be able to sustain itself for prolonged periods in times of great catastrophe.

In Choedrak's case, his belief system—the principles of Buddhism and world peace—was felt to be longer lasting and more important than his individual life. Paradoxically, by not being afraid to lose his life, he helped save his life.

Since he was not holding on to life so tightly, he was not permeated by corrosive anxiety and fear. Prolonged anxiety and fear are not only able to kill *per se*, but they also can attract substantial aggression in a dangerous situation.

The Triumphant Person attains this inner peace with his or her motives and has tranquility in his/her emotional house. There seems to be major survival benefits to having harmony and peace with one's motive. When a person has such peace and harmony, the total resources of the body, its chemistry and physiology seem to be attuned, harmonious and composed.

In order to insure maximal survival, these inner forces have to be unified, cohesive and working together. In a crisis during the life of the Triumphant Person, the stress is usually coming from the outside, *not* the inside. By having minimal internal warring factions, the body's resources seem to be maximally preserved, maintained under the most adverse circumstances. Buddhists feel this inner peace is only possible when the motive is unified and not in conflict with the rest of the body.

Another characteristic of the Triumphant Person is that he or she is not afraid to undertake goals or engage life—win or lose. He/she is not afraid to pay the price required to reach a goal. The mission is felt to be worth it, and is greater than the individual's self-strivings. Also the nature of the motive that energizes the Triumphant Person seems more self-sustaining and less personally oriented, and consequently less susceptible to the emotions of vulnerability—namely, anxiety, fear, guilt and depression. When endeavors do not



work out, they do not seem to represent a personal "failure," because the individual is at peace with his/her motives.

Strength is obtained by a constant inner focus on motives through meditation, introspection, self-reflection or prayer. Triumphant People review what is guiding their actions; what are the true reasons why they are doing what they are doing in the present; and the true reason why they did what they did in the past.

In Buddhist teaching, the right intention (right motive) is the true substance of a person (second step of the Eight-Fold Path). By being at inner peace with one's motives, a person transcends the transitory nature of temporal ap-

causes and effects.

Success or failure, approbation or censure, are often decided by what humans can see and interpret of other humans during the period of their lives. But in the face of the overriding principles of cause and effect and true intent (motive), such transitory assessments amount to little, are surface usually, and have little or no depth. Unless they represent the true essence, or the true motive, they are not viewed as truly important.

The Triumphant Person is also enhanced and fortified by goals that reach beyond self-serving ends. Being needed, wanted and essential provides high energy, even when those who receive benefits from their efforts are not con-

ordinary frailties and weaknesses. Choedrak's need to serve his people and His Holiness, and thus indirectly the people of the world, was so sustaining, so invigorating, that the rules of physical survival have to be reevaluated by his example.

Choedrak embodies another quality of the Triumphant Person. He is *actively* engaged in pursuing his high purpose in life. In his case, it is not a theoretical potential somehow hidden in his being, but it has actually reached fruition and is functional in his everyday life. For Triumphant Persons this constant activity in their chosen field implements their feeling of high purpose and augments survival. They know they are needed and essential.

Choedrak described meditation, prayers, mantras and visualizations that enhanced profoundly his underlying will to live and his preparation to withstand adversity. However, these modalities appear utilizable to their fullest capacity only when a belief system and a sense of high purpose are in place to provide a necessary foundation. Their benefits seem to be commensurate with the person's motive and commitment and sincerity. In other words, these techniques and methods can have great benefit or little or no benefit, depending on what inner forces motivate them. □



proval or disapproval, failure or success. When motives are aligned with the highest human strivings, a person is at peace. By going to the heart of the motive, each action, each thought, however small or imperceptible, is taken into account in terms of its cause and effect.

In Choedrak's case, he feels that this cause and effect is a natural and true phenomena. It is as if the things one does were being recorded in the great computer of eternity. It is felt by Choedrak and other Buddhists that this cause and effect principle affects any outcome, no matter whether it was seen or unseen by the natural eye or observed by others. For example, if one takes harmful substances into the body, however minimally, there will be an effect on the body—even if that effect is subliminal, not observable, and despite the fact that it may be reversible by other

stantly at their side to reinforce the energy with expressions of appreciation or gratitude. This is not to say that other motives cannot also create excellence of achievement, but other motives—self-promotion, self-glorification, self-attainment—do not seem to give the same feeling of sustained, inner peace.

By helping His Holiness and working for an inclusiveness and interrelationship with all humanity, Choedrak was extending his powers. This in turn provided a strong feeling of connectedness and involvement. He was so active in the use and development of his talents that they continually enhanced his will to live. His survival skills for transcendence in crisis were also augmented.

Survival energy can be seen in a mother fighting to protect her children. She knows she must survive to protect them, and defies cold, danger, and

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### For Further Reading:

For valuable discussions and points of view about youths who triumph over life-threatening circumstances and/or chaotic and dangerous childhoods, see "*The Victorious Personality*," by Gail Sheehy, *The New York Times Magazine*, April 20, 1986, Page 24 and "*Thriving Despite Hardship: Key Childhood Traits Identified*," by Daniel Goleman, *The New York Times*, October 13, 1987, Page C-1. Also, Dr. Raymond B. Flannery Jr., has a valuable article in the *Harvard Medical School Health Letter*, February 5, 1989, which highlights certain preventive measures to be taken against ordinary stress.





# Negligence

A Short Story by George S. Bascom

**D**r. Hosea Hardy is a fixture on Deep Creek, a plain, old-fashioned country doctor who has given shots to three generations of patients. Doc's practice probably wouldn't work anywhere else, but it does on Deep Creek. He has a regular practice, people of all ages and sizes, but he also does a little animal work on the side. He keeps saying he doesn't want to encourage that part of his practice. After all Frank Fishburn is a good friend and a fine vet who limits his clientele strictly to animals. But little kids still bring birds and lizards to him, and Doc likes to do what he can for them. I sat in his waiting room half an hour one time while he bandaged a Muscovy duck for the little Kornbeek girls.

Doc still makes house calls, likes them in fact. Sometimes people get him to throw in a little work on their livestock, and he does it cheerfully. He likes animals and feels guilty about

charging \$4.50 for a country call if he sees only one patient. So Doc and his battered old Ford Galaxie are part of the natural environment around here.

He is short and plump, with a fringe of white hair around his bald dome. His china blue eyes peer dreamily at the world through gold-rimmed spectacles usually perched halfway down his nose. Nobody ever saw him mad. "I like to pick up the pieces," he says. "Somebody else will have to bust things up."

Doc doesn't operate anymore or deliver babies. But he still takes care of lots of people. He says the trick is knowing what you don't know and never being too proud to ask for help. Through his decades of practice, he has learned to tell whether someone is sick or not really sick. If they are, he gets help right away since medicine is moving too fast for him to keep up. But most people aren't really sick so an ignorant old doctor can't hurt them as long as he resists the temptation to interfere with

nature. He does try to keep up on dangerous treatments so he can avoid them. If he can't help, he doesn't want to hurt.

He gets along fine that way with the other doctors including the vets. Oh, some new ones think he ought to retire, but the older ones know he's smarter than he lets on. They tell stories of unexpected shrewdness, times those simple china blue eyes see things specialists overlook. He is absent-minded, lord knows, but he is smart.

I hate to have to say it, but he is also one of the worst drivers in the county. He sits so low in his Ford that the dash is at eye level. He prefers the center of the road and has a way of backing out of his drive with more trust than caution. His driving habits led to the trouble that particular day. Doc was driving down the middle of Deep Creek Road as usual on his way to check one of Fred Kornbeck's kids and a yellow cat. On down the road one of Old Man Offut's prize Poland China hogs was ailing so he planned on a stop there, too.

Now everyone on Deep Creek plans to move over when Doc shows up—the county grades the ditches wide and shallow just for that reason. Doc isn't proud of it. He knows it isn't safe driving down the middle of the road taking bearings from fences and power lines on either side. But he just isn't built right for a car. If he sits higher, he can't reach the brake and foot feed. People on Deep Creek understand that and make allowance for it. They pull over or, if they have a wide load like a rake or a combine, they call Doc and warn him off the road. When he does accidentally crumple a fender, they just get it fixed without a lot of fuss. Doc always drives slow and never has hit anyone hard. He takes care of dents and is so honest and good natured about his driving problems that nobody minds. Well, nobody on Deep Creek.

Outsiders naturally wouldn't know Doc so they couldn't be expected to make the customary adjustments. Doc realizes that and doesn't bear a grudge about it. Not even after all Jerry Skurk put him through with his bright red Corvette.

To this day nobody can understand what he was doing on the gravel of the Deep Creek road. Oh, Skurk said he was early for an appointment and wanted to try a new route off I-70. He said—you and I both know how far you can trust what a lawyer says—he said he needed to check his map. That's why



he was bent over in the front seat, to get to the glove compartment.

And, as fate would have it, that's when Doc Hardy came over the little rise doing about thirty in his battered old Ford. As usual he was in the middle of the road or maybe even a little to the left. He said something warned him there might be a car ahead—he had a sixth sense about such things. He hitched himself up in the seat to take a look over the hood and accidentally tramped down on the gas pedal. That gave him a little extra speed as he went head on into Jerry Skurk's bright red Corvette, sitting there big as life and taking up the entire right lane.

Doc and his Ford had been through plenty of collisions before and neither one took any real harm. Muffy Underwood repairs Doc's cars and has added reinforcements here and there that keep his work down to a minimum after a wreck. But the Corvette was crumpled. At first Doc thought he'd hit an empty car but then he heard a steady hollering from it. He found lawyer Jerry Skurk bent over with his head and shoulders pinned under the dashboard so he couldn't move. His coat and shirttails were pulled up and his expensive pants pulled low. When Doc looked in the window, the first thing he saw was a wide expanse of rump. He said he could tell from the way it quivered that its owner was mad as a hornet but not really hurt.

Doc is always pleasant in these circumstances. He poked his head in the window and patted the rump. "Howdy, stranger," he said. "I'm Doc Hardy. It looks like I run into you, but you don't look hurt, just stuck."

A muffled response rose from beneath the dash. Doc said at first he thought Skurk was worrying about his shoes and told him he couldn't reach them. But when he listened closer he could make out he was yelling, "I'll sue! I'll sue!", over and over again.

Doc sensed he was upset. "Now, now," he said. "There ain't any need for that. I'll pay for your dents, and I'm real sorry for all the trouble."

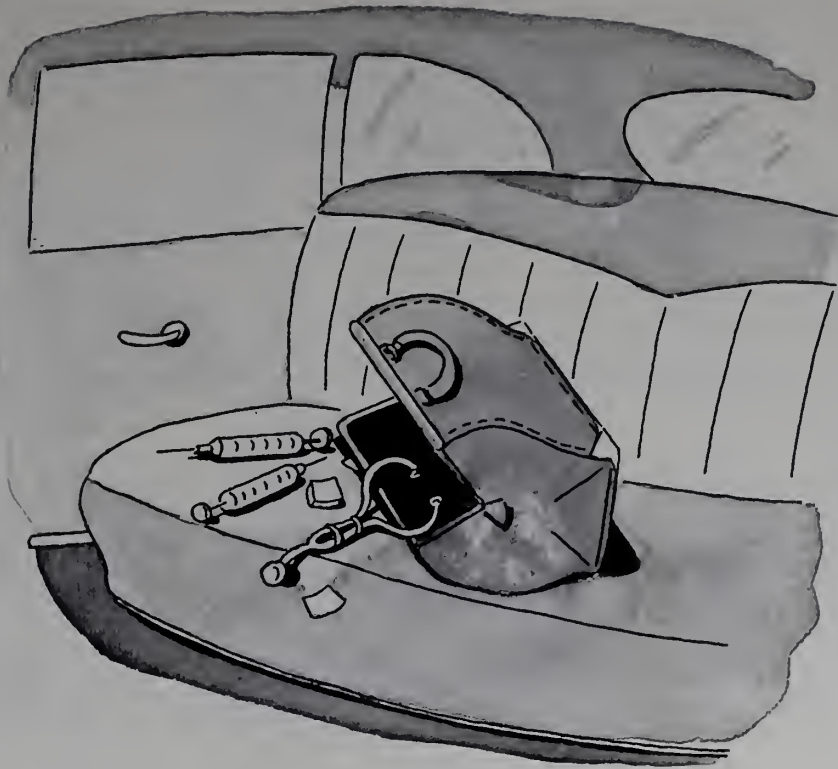
Doc said the large white buttocks surged up at him. "I'll sue," Skurk yelled. "Get me out of here. I'm trapped. I might be dying."

Doc told him to calm down. He wasn't hurt, and they'd just have to wait until help came along to pry the seat and dash apart.

Skurk yelled, "How do you know I'm not hurt? How do you know?"

Doc explained he was a medical doctor and Skurk wouldn't be yelling like that if he were.





There was another surge of commotion between Skurk's shirttail and his pants, from his short ribs to what Doc calls the intergluteal crease. The lawyer solemnly promised to sue him for everything he had, first for hitting him and his Corvette and second for just standing there. "Do something," he hollered. "You're a doctor. For God's sake do something!"

Doc wanted to help of course. All he could think of was a shot. After all there was the upper half of both buttocks and he had plenty of syringes. He hustled over to the Ford which was sitting patiently, a wisp of steam rising from its grill. He admits he was sort of rattled, the lawyer hollering at him and all. And then any doctor can get mixed up about patients—you'd have to have seen the lawyer's behind to understand—and he'd had his mind set on vaccinating old man Offut's Poland China. All of which added up to his grabbing a syringe of hog cholera vaccine when he really figured on giving a tetanus booster.

He trotted back to the Corvette and found the plump buttocks exposed as before and the same raucous hollering going on, "Do something, damn it, do something!"

"All right," Doc said. "Hold still a minute. This might hurt."

"What might hurt? What might hurt?"

"A shot," Doc said.

"A shot? A shot? What kind of shot?" Doc said the lawyer's rump

shrank away from the window more than he'd have thought possible in so fleshy a man.

He figured any more discussion would only prolong the lawyer's anxiety and exasperation, so he wiped a patch of skin with alcohol, impaled it with his needle, and shoved the vaccine into the suddenly arching buttock. Doc said the lawyer cursed and bucked and carried on like he'd been bayoneted. The tirade was so interesting that several minutes passed before he looked at his syringe and realized his little slip up.

"Oh, oh," he said.

The lawyer had stopped for breath. He heard Doc and wanted to know why he said "oh, oh."

Doc told him it wasn't anything serious. He'd just meant to give him a tetanus shot. He felt so bad and mad at himself about the mistake that he hustled right back to his car for a tetanus syringe. This time he made absolutely sure of it, ignoring the drumroll of questions and imprecations coming out from under the Corvette's dashboard.

By now Doc was in a no-nonsense mood and gave the shot in the middle of a threat, this time in the other buttock and without warning. That stirred up another hornet's nest. More cussing and abuse and threats even though he was doing his level best to help. Doc pointed out that the Deep Creek road is not a hospital. Ingratitude is always hard to bear.

He told him to quiet down. He'd

done all he could until help came. The lawyer kept after him about the first shot. "What was the first one? How come you said 'oh, oh'?"

"Well, I said that because it was hog cholera vaccine."

"Hog cholera! Hog cholera!" he howled. "You gave me a hog cholera shot? Hog cholera—hog cholera—hog cholera?" He drew hog cholera out like a hound dog sitting on a nail. Doc said his voice went up an octave at a time and nearly made soprano before it broke. Doc stayed with the lawyer but kept pretty quiet after that since everything he said seemed to rile him up. Joel and Amos came along about then in their pickup. They farm out there and are famous for their helpfulness. They could hear the lawyer a quarter of a mile away even over their bad muffler. He had a carrying voice. Those two big farmers pried the dashboard and the seat apart and Skurk popped up like a jack in the box, red faced, rumpled, sweaty, and mad. He was holding the back of his head where he'd been bumping it against the dash. "Look at my ear," he howled. "Look what you did to it." He buried his face in his hands and then straightened up. "All right," he said. "Names and addresses." So Joel and Amos and Doc gathered around and spelled them out. The lawyer got testy when Doc spelled "doctor" out for him letter by letter. "I know how to spell doctor," he spat. It hurt Doc's feelings a little, but he overlooked it.



Two or three times he tried to tell him he'd cover the damage, but the lawyer didn't pay any attention. He said he was sure it would be taken care of. Then he got a camera out of his car and took pictures of everybody. He had Joel take a couple of him with his tie all twisted and a look of awful pain on his face. He was all business.

The police investigation took only a few minutes. They called Muffy Underwood and before long he came down the road in his customized wrecker, the only one in the county—maybe the Midwest—with a racing stripe and chrome exhausts. Muffy always wears a slightly bewildered expression which is a true reflection of his state of mind since he pays little attention to anything said. Muffy looked at Doc's Ford with an experienced eye and thought Doc could drive it home but needed to get his wheels aligned next week. Then he hooked his tow truck up to the Corvette. Joel and Amos could tell he was admiring it since he didn't hear anything they told him. Just to show off a little, Muffy threw some gravel when he took off but settled down and went round the bend with the battered Corvette swaying behind.

The police offered lawyer Skurk a ride. He groaned as he sat down and tried to get comfortable. "I'll see you in court for this," he moaned as they pulled away.

Skurk set great store by his Corvette. He told Brewer's he wanted it fixed up as good as new or better and to spare no expense. Specs Shea is Brewer's service manager and always carries a clipboard. He bustled around writing everything down, making special notes about exactly how Skurk wanted things fixed and in what order. It is the part Specs likes best about his job because people seem so happy in those moments when he is writing down their problems and promising to get right on them. It is Specs' long experience they are never that happy again.

The service department at Brewer's is kind of a democracy where everyone does his own job and tries not to interfere with the others. The mechanics let Specs write things down, and he lets them fix the cars. Muffy Underwood had already claimed the Corvette since he hauled it in. It made Specs a little nervous because he generally had to face customers when they picked up their vehicles. He'd learned through the years that Muffy was one to forget a part or sometimes improvise a little if he ran into a problem that interested him. Specs had said something about it. He explained to Muffy that he was person-

ally responsible for all the work that went out of there and since he was so busy with estimates and customer relations he didn't have time to check things like he wanted to so would Muffy just do the things he put down on the list and not add extras and leave things off. Muffy absently said he would get on it right after he found a ratchet head he needed. Specs sighed and went off for some more coffee. But fair is fair, and Muffy did tow the Corvette in. So he was the one—along with Mike Good in the body shop—to fix it up. It turns out that was an important development.

The lawyer left town in a rented Pontiac, and everyone figured they'd seen the last of him. But two days later Doc showed up in Kent Thompson's office and dropped a registered letter on his desk. Kent is one of our good citizens. He is smart as a whip and knows the law, but as a lawyer he has two great weaknesses: he likes people and he's honest. So his practice features lots of helping and only a little prosperity.

Kent looked at the letter. "Well, Doc, you're getting sued. Oh, boy, Jerry Skurk. He charges you with reckless driving, assault, negligent and unauthorized medical treatment which has resulted in severe pain, suffering, mental anguish, and permanent psychological harm to the plaintiff. A million dollars."

Doc sat down. "Good heavens, a million dollars. I never charged him for the tetanus shot."

When Kent got the whole story, he shook his head and allowed Doc was in pretty serious trouble what with running into a parked Corvette, giving a hog cholera shot, and then a tetanus shot without written permission.

"How was I going to get it in writing? He was stuck under the dashboard howling like a banshee for me to do something."

Kent looked gloomy. He said Skurk had a seamy reputation and without witnesses or something in writing it would be hard to show legal consent. Doc has a stubborn streak. He said he'd fight it all the way. He never gave a million dollar shot in his life, and he wasn't going to start now.

When Joel and Amos heard about the suit, they offered to help. Amos said they might ask the lawyer to change his mind. Doc didn't think it would do any good, but he didn't care if they tried. So they called Skurk's office three times. His secretary always took their

names but never called back. Their wives, Jael and Martha, thought the world of Doc and kept a lot of pressure on the men about it. Jael wanted to countersue for 10 million for upsetting everybody and Martha thought they ought to contact his church and bring the matter before the congregation in a spirit of love. She had scripture to support her. But Jael came up with something from Luke, "Woe to you lawyers! for you have taken away the key of knowledge; you did not enter yourselves, and you hindered those who were entering." "Woe to you lawyers," she kept muttering every time the matter came up.

Finally Joel and Amos simply got in their pickup and drove to Topeka. They located Skurk's office in the KPL Building, up on the tenth floor, air conditioned and with art work on the walls done by the handicapped judging by the way none came close to being recognizable. They credited Skurk for displaying the work of the less fortunate like that.

They shuffled over to the desk in their overalls and work shoes and told the secretary they'd come about a lawsuit. She whisked them right in to Jerry Skurk's book lined office. Skurk looked a lot better than he had on Deep Creek. He wore an expensive, unwrinkled suit, a silk shirt and matching tie. He flashed a huge diamond ring and a gold wristwatch at them as they introduced themselves and shook hands.

"Well, gentleman," he said briskly, "who do you want to sue?"

"Actually, nobody," Amos said. "In fact we come here to reason with you about Doc Hardy."

"Reason with me?" Skurk drew himself up and took on a lawyerly look—one of detachment from reality and righteousness. "Reason with me? Gentlemen, you are in the office of the most successful trial lawyer in the state. I have won more suits than most other lawyers try in a lifetime. I don't start a suit unless I know I will win. There's no money in defeat, gentlemen. I don't have time for it. Now, I propose to get a substantial settlement from Doctor Hardy, an incompetent who caused me pain and suffering. A substantial settlement, gentlemen. You can't reason me out of the facts, and you can't reason me out of the law. Laws were enacted by our founding fathers to protect the innocent against the depredations of the evil and incompetent." His voice swelled to a vibrant carrying tone that made windows and vases quiver. "No, gentlemen," he said, dropping suddenly to a prayerful whisper, "you could rea-





son me out of money. But this is a matter of principle, a matter of constitution, the God given right to be compensated for wrongful injury. In this suit I represent all of suffering mankind. I cannot turn my back on the sacred provisions of the Constitution or the rights of my fellow man."

Joel and Amos sat there a minute thinking about it. Amos finally spoke up. He admitted he hadn't thought of it that way before, like a sacred duty. Joel said he hadn't either, and he had to respect the lawyer for his principles when all along he'd thought it was just money he was after.

"Oh, not at all, not at all," the lawyer said. He used his hands a lot when he talked, and Joel and Amos afterward remembered how the light kept glancing off his diamond, nearly blinding them.

"Still," Joel said after another minute. "Constitution and all, it does seem a little hard on old Doc. He really is a good man, takes good care of his patients. We sure hate to see him go through a lawsuit like this. He's taking it pretty hard."

"Ah, yes," the lawyer said with a gentle smile. "A good man. A good man." He paused, then spoke as if hit by a sudden thought, "Doesn't the Bible say, 'By their fruits ye shall know them?'"

He had them there. They both knew it did. He pointed out that Doc had done him terrible harm and those were the only fruits he knew about.

Amos said the lawyer looked pretty healthy and prosperous in spite of the accident and shots, but the lawyer cut him short. He said you can't tell how much a man has suffered just by looking at him. He said he'd get up to show them to the door except that his painful injuries prevented it. He suddenly looked so miserable that it dawned on Joel and Amos they ought to leave in common courtesy even though they hadn't softened him up a bit.

On the way home they talked about how complicated life is. Their friend, Doc, as good a man as they knew, had inflicted injury on lawyer Skurk, a high principled and constitutional man. They were caught between an old friendship and a lofty love of law and man. They had a powerful urge somehow to make peace between the parties, but to help one seemed likely to hurt the other. What they needed was a way to help them both at once.

They were impressed by the pride the lawyer took in his shiny Corvette. If they could help Muffy fix it, even improve on its performance, it would erase the damage Doc had done to it. It would ease the situation a lot and, to their relief, it would finally give them something to tell their wives. It was the kind of concrete project they had proven themselves on time and time again.

They couldn't wait to talk to Muffy Underwood. They knew he'd fall right

in with it. Muffy is pudgy, greasy, and a little otherworldly. He has a deep interest in engines and transmissions and in little else and an easily kindled fire of enthusiasm, just like Joel and Amos. Once interested he lets nothing stand in his way, not General Motors or public opinion, and certainly not Specs Shea. When Joel and Amos explained the situation to him, Muffy seemed about to understand. At least he looked at them once or twice. They put quite a bit of emphasis on improving the Corvette and that got his attention. "You want me to modify it, power it up?" he asked.

"Anything that will make it a better car than when Doc hit it," they said. They told him Doc would cover the cost.

Of course, it's easy looking back to see the mistake. But people are unpredictable. Nobody can change that. It's a risk you take whenever you try something, no matter how pure your intentions.

Once Muffy had his mission, he went hard to work on it. Specs came by every morning with a list of other things for him to do which Muffy ignored. Joel and Amos dropped in nearly every day to see the car come back to life. Mike Good had the body smooth and shining before long. In the far corner of the shop Muffy was busy 18 hours a day. Nobody, least of all Specs, knows exactly what he did. Some say he fixed the carburetor and installed a turbo-charger, bored cylinders and changed



the transmission. Whatever he did took considerable time, but when it was over, Muffy had a happy look on his tired, greasy face.

Meanwhile a pre-trial hearing had been set up. Judge Harkin was imported from Marshall County since Doc had treated all the local judiciary one time or another. He was a pretty stiff old bird who wouldn't stand for any foolishness. Kent Thompson expected a bad time, but things turned out even worse. For one thing Doc had the unshakable habit of speaking the truth, the whole truth, and nothing but the truth. Nobody quite knew how to handle that in a courtroom.

Doc was the first witness. He told the court he was driving down the middle of the road, couldn't see where he was going, accidentally stepped on the gas when he tried to get a better look, and just plain ran into Skurk's Corvette. He went on to say it had happened plenty of times before. Kent tried to stop him, but Doc thought the court ought to know he was an old fool to drive that way. He was sorry. He'd pay for all the repairs the way he always had before. Kent jumped to his feet and objected. The judge hammered him down and said he couldn't object to his own client's testimony. "Confer with him, counselor," he ordered. Kent whispered hard to him about not incriminating himself and just answering questions. Doc looked puzzled. He checked with the judge about the oath, the part about the whole truth, and the judge said he was technically right. The law called for the truth but didn't expect a man to supply his own rope for a hanging.

"Well," Doc said, "law's law, but an oath is between me and the Almighty."

So the judge and Kent sat back while Doc went cheerfully on about getting excited and shooting Skurk with hog cholera serum. He said it was just a plain damn fool mistake. He'd made mistakes before, and he guessed he would again. But he felt bad about this one and didn't have any excuses. It was just carelessness. About permission, he should have asked before he gave the tetanus shot. But Skurk was hollering for him to do something and he gave the shot partly to calm him down. Doc added he'd never before heard anyone howl that loud about a simple shot. Skurk's lawyer stood up and objected, but the judge told him to sit down. Doc had covered everything so well and candidly they didn't need to cross-examine him.

The police and Joel and Amos told their stories. The judge asked if anyone witnessed Doc give the shots, and they said they didn't.

Then Jerry Skurk limped to the stand in a threadbare suit and groaned when he sat down. The judge gave him a hard look and then stared at the ceiling as he went through a pitiful story of suffering and nervousness. He hadn't slept a night through, had nightmares, panics, and asthma attacks. He couldn't concentrate on his law work, and his business was ruined. When he buried his face in his hands and sobbed, Joel and Amos noticed he was so upset he'd forgotten to put on his watch and diamond ring.

The judge heard him out and simply said there were legal grounds for a trial. Then he called Kent to the bench and hissed at him, "For heaven's sake, can't you get your client to shut up?" Kent told him he's tried, but Doc was too old to change. Personally, he found it refreshing to have a dead honest witness on the stand. The judge thought about it and then rapped his gavel and adjourned the court.

Jerry Skurk limped out leaning on the arm of his attorney. Doc and Kent went out another door, Doc telling Kent he never saw such a shabby fake in his life. It made him want to puke, he said.

Joel and Amos, though, felt a good deal of sympathy after hearing Skurk tell about his terrible suffering. They wanted to cheer him up as he shuffled down the steps of the courthouse. When they caught up, Amos offered his bandanna to wipe his tears which Skurk just ignored. Joel told him his car was just about fixed and looked better than ever, thanks to Doc and Mike Good and Muffy Underwood. The lawyer brightened up at that and wanted to have a look at it. It took his mind off his terrible suffering so much that he lost his limp and hopped into the pickup with Joel and Amos.

As it happened, Muffy had just run the Corvette out for a road trial. It sat at the curb—gleaming red, smooth as satin. When he saw it, Jerry Skurk seemed to be healed. He asked Muffy if the motor was fixed and if it would run. Muffy hadn't expected to see the owner quite so soon. He looked at Joel, then at Amos, and finally said, "It's fixed. I've built in some extra power and I just wanted to run it around the block to be sure she's not too hot for you to handle."

Jerry Skurk smiled indulgently. "I can handle it," he said, "I can handle it."

Muffy stood his ground. "I modified it some. It's a hot car, Mr. Skurk."

"And I'm a pretty hot driver," said Skurk with a reassuring smile. "That's what I always wanted, the fastest Corvette on the road. The fastest 'vette for the hottest lawyer," he chortled.

Muffy thought a minute and then shrugged. "You own it," he said. "I just worked on it. Take it easy until you get the feel of it."

Jerry Skurk slipped behind the wheel. Muffy told him to wait until he got the wrecker out so he could follow. Just in case. Joel and Amos were surprised to find Doc peering over the dash beside Muffy. He said he came for the road trial to see what he was paying for. After they piled in, Muffy stuck his head out the window and told the lawyer to start his engine.

Now the service entrance to Brewer's is on Sixth Street. The Corvette was at the curb pointed toward Bluemont Hill where the street ends eleven blocks north. It is normally a quiet and shady street with slow traffic due to the dips at every intersection. At the foot of Bluemont Hill are some softball fields and the municipal water plant. Tuttle Creek Boulevard, four lanes, runs past the water works along the east side of Bluemont Hill and clear to Canada once you get on it. You need to understand the geography to appreciate fully what happened next.

As Skurk reached for the ignition, Muffy yelled at him to buckle his seat belt. Skurk ignored him and turned the ignition.

Joel and Amos were startled to see twin blue flames flare out of the tail pipes. The Corvette came alive with a deep, impressive roar and smoke curled up from the asphalt twenty feet behind. "Alcohol and ether," Muffy explained. An excited Skurk gave them a thumbs up and threw it into gear.

The rear tires screamed and lifted the front wheels clear off the pavement. Bystanders remember that Skurk's face went chalk white as he left the curb, nearly buried in the upholstery by the sudden G forces. The Corvette rocketed across Poyntz missing a patrol car by several feet and was halfway to Humboldt before the front wheels touched down again. It slowed ever so slightly while the brake discs burned out under Skurk's foot. They were gone by Osage and after that the Corvette was a bright blur.

Muffy let the clutch out on his customized wrecker and followed as fast as he could. He didn't slow for the dips which made the truck shudder and rattle as it bucked across them. The Cor-





vette, being lighter and faster, took them like a hurdler, sailing six or eight feet into the air as it came off the dips.

They lost sight of the Corvette at the foot of Bluemont Hill. He was seven blocks ahead and made a skidding turn onto the softball diamonds. When they got there, they found a softball game suspended while people stared at a dust plume hanging over the water plant. One of the ball players said Skurk crossed the diamond between first and second in the middle of a double play and then through right center field. He went through the backstop of an adjoining diamond and the privet hedge by the waterworks before he flew onto Tuttle Creek Boulevard. Muffy took the same gap and swung north just in time to catch sight of the Corvette far ahead. They saw it go up the little hill by Rocky Ford and at the crest become airborne for several seconds trailing beautiful blue streamers of fire.

"Look at her go," Muffy yelled. He pounded the steering wheel with delight. Muffy was never more impressive, greasy cap pulled down tight on his streaky blond hair, bill backwards as always, hunched over the wheel, gas pedal to the floor and trying to coax all he could out of his tow truck. It was enough to turn the roadside scenery into a blur.

It was easy to follow the lawyer. He was going too fast to turn off, and along his route cars were pulled off on the shoulder or in the ditches. In the fields here and there a farmer stood on his

tractor seat looking north.

They caught up with Skurk just outside Randolph. He finally ran out of fuel but lacking brakes still couldn't stop. He had coasted over the crest of a hill and into the back of a county truck busy dumping asphalt, marked with warning pylons, and parked well onto the shoulder. The Corvette was crumpled beneath the truck and the road crew was just climbing back out of the ditch when Muffy screeched to a halt. A pile of hot asphalt sat on the hood. One fender was gone, steam rose from under the hood, and backstop wire and privet hedge hung from the grill work and crevices in the body.

They ran over to the wreck and found the lawyer Skurk again stuck beneath the dash, hollering for someone to get him out. Doc was disgusted. He thought a man might learn not to get pinned the same way twice. The heat from the asphalt was noticeable to Skurk. He hollered at them that the car went wild on him and now he was about to burn. Doc shook his head and told them to go ahead and pry him out.

The highway patrol showed up about then and promptly arrested him. They noticed a heavy odor of alcohol on the scene and were surprised when the blood alcohol test came back normal. He was confused and unsteady enough that they handcuffed him and took him in. Muffy got to run the Corvette back.

Judge Harkin took considerable interest in the lawyer's rampage. He reviewed depositions from drivers, softball players, and the county road crew attesting to mental suffering and anguish brought on by their harrowing exposure to the Corvette. He gathered evidence that Skurk had been duly warned about the vehicle and disregarded expert advice about driving it. He noted the odor of alcohol, the useless brakes and duly noted he was not wearing his seat belt. With all this in hand, the judge held a conference with Skurk and his counsel. He knew how strongly they felt about traffic violations and intended to apply the law with the same strictness to the lawyer himself. Unless he heard some mitigating circumstances.

"Such as dropping the suit against Doc Hardy?" the lawyer asked.

"Such as that," the judge nodded. And with that mitigation sentenced him to 1,000 hours of community service, fined him about the cost of his wristwatch, and suspended his driver's license for a year. Jerry Skurk was glad to get out of it alive and without a worse sentence. Doc was happy about the arrangement and Joel and Amos felt good about the triumph of peace. Only Muffy Underwood was never fully satisfied. "Think what it could have done if he'd stepped on the gas," he said. □

*George S. Bascom '52 is a general surgeon from Manhattan, Kansas, who is known also as poet laureate of his class.*



# TWO BLACK ALUMNI

**D**espite the Emancipation Proclamation, which abolished slavery in the United States, America was still a racist society at the onset of the twentieth century. Even Boston, the center of abolitionist activity in the antebellum period, was firmly entrenched in the separate but equal doctrine evident throughout the country. African Americans had not achieved the freedom and equality promised in the Civil War. They were still believed to be an inferior race, a viewpoint enhanced by the abject poverty and illiteracy that was the human condition of most African Americans at that time. With the northern migration of blacks after the Civil War, even Northerners began to feel that African Americans were inferior.

In what ways were they inferior? Obviously, not in a physical sense. Southerners often boasted of the physical abilities of their slaves. In fact, the stronger and more fit a slave was, the

## *Overcoming Racial Barriers*



by Preston R. Black

more valuable he became. Man has always distinguished himself from lower animals by the ability to think and reason. Therefore, the accusation that blacks were inferior implied that they did not have sufficient mental abilities to comport themselves appropriately within white society.

Despite these obstacles the black intellectual was not to be denied. After the Civil War many black universities were established and were where most of the new black intellectuals trained. Other black scholars were admitted to and graduated from prestigious white universities. The rise of the African American scholar was so successful that by 1897 a group of them founded the American Negro Academy to promote the arts and letters, sciences, higher education, the publication of scholarly works, and generally to advance and promote black culture. Through groups like this the intellectual achievements of black Americans flourished. In fact,



the first two decades of this century might be considered the period of the African American intellectual renaissance.

This movement was not without internal turmoil, for inherent was the question of racism and the relationship between black and white Americans. Divisions within the American Negro Academy typified the divisions of most African American scholars of that time. One group felt that higher education was the foundation on which all of America's racial problems could be solved; that it would be clear to all that a well-educated black man was no different than any other man. With intellectual achievements would come full acceptance into American society as well as enfranchisement. These gains would be made by reasoning, not through political acts.

Another group within the American Negro Academy was more pragmatic. They felt that education, while important, would not solve the problems of the African Americans, and that the plight of black Americans could only be reversed by political means.

William Augustus Hinton '12 and Louis Tompkins Wright '15 must have been acutely aware of these debates raging among black intellectuals when they attended Harvard Medical School. Each man must have had to decide the way that he would deal with this controversy. It is interesting to examine the lives of these two famous black alumni to see how these decisions affected their careers.

## THE ROAD TO HARVARD MEDICAL SCHOOL

William Augustus Hinton was born in Chicago in 1883. Although both of his parents were born in slavery, they instilled in him a strong sense of worth. Early in his life his family moved to Kansas City, Kansas, where Hinton at the age of 16 was the youngest person to ever graduate from high school. He then enrolled in the premedical curriculum at the University of Kansas. After two years of study, Hinton was forced to leave school for lack of funds. He later transferred to Harvard College where he obtained his B.S. degree in 1905.

For the next four years, Hinton taught chemistry and physics at Walden University in Nashville, Tennessee. He also taught embryology at Meharry Medical College during this period, though he was never officially a mem-

ber of the teaching staff. During the summers he continued his studies in bacteriology and physiology at the University of Chicago. In 1909, Hinton enrolled at Harvard Medical School.

Louis Tompkins Wright was born in LaGrange, Georgia, in 1891. His



*Despite Hinton's outstanding record at the medical school, he was not given a position, clearly because of his color.*

father practiced medicine briefly but was drawn to the ministry, which eventually became his life's work. When Wright was four years old his father died. Four years later his mother remarried. His new father, William F. Penn, MD, was very influential in Wright's life, for it was he who encouraged young Louis to study medicine. In 1911, Wright graduated from Clark University in Atlanta as class valedictorian and, at

his stepfather's insistence, Wright applied to Harvard Medical School.

The HMS admissions committee erroneously believed that Wright had graduated from Clark University in Worcester, Massachusetts and were somewhat dismayed when they discovered that he had attended a small black southern college. Before Wright was allowed to matriculate, it was felt that he had to prove his scholastic abilities. He was referred to Otto Folin, who agreed to give Wright a verbal chemistry examination. He performed so admirably on the examination that he was immediately admitted to the medical school.

## LIFE AT THE MEDICAL SCHOOL AND EARLY CAREER

Hinton's time at medical school was highlighted by scholastic achievement. He graduated in three years after winning both the Hayden and Wigglesworth Scholarships in open competition. Wanting to become a surgeon, he applied to the Harvard teaching hospitals for a position. Despite his outstanding record at the medical school, he was not given a position, clearly because of his color. Unable to obtain a surgical position, Hinton began working as a volunteer assistant in the Department of Pathology at the Massachusetts General Hospital. While there he performed autop-



*Louis Wright as a New York police surgeon conducting physical examinations in 1949.*



sies on all patients known or suspected of having syphilis and participated in research on *Treponema pallidum*. He published his first paper on this subject in 1914.

In 1915 the control of the Wassermann Laboratory was transferred from Harvard Medical School to the Massachusetts Department of Public Health. Hinton was placed in charge of the laboratory as assistant director of the Division of Biologic Laboratories. It was also in 1915 that he was appointed director of the Laboratory Department of the Boston Dispensary. He soon established himself throughout the country as an authority on the serology of syphilis and in 1918 was asked to write a chapter on the Wassermann reaction and syphilis in Milton I. Rosenau's textbook of preventive medicine. In 1924 Hinton received an appointment as instructor in preventive medicine and hygiene at Harvard Medical School.

Louis Wright also had an excellent scholastic record while at Harvard Medical School. He graduated *cum laude* in 1915, finishing fourth in his class. However, his stay at the medical school was not without controversy. While a third-year student, he was informed that he could not perform deliveries at the Boston Lying-In Hospital because he was "colored." Instead he was supposed to study obstetrics with a black Harvard graduate who practiced in the Boston area. Wright was outraged. Since he had paid the same tuition that all the other students had paid, he felt he should be treated like any other student. He was supported by his classmates and uneventfully participated in the obstetrical rotation at the Lying-In.

Wright also wanted to become a surgeon. Upon graduation he applied for an internship in the Harvard teaching hospitals, and he too was denied a position in Boston because of race. On the advice of his stepfather he applied to and was accepted at Freemen's Hospital, the teaching hospital of Howard University Medical School. During his internship, Wright published a paper on the validity of the Schick test in blacks, the first published paper from any hospital under Negro control. After internship, Wright entered practice with his stepfather in Atlanta.

When the United States entered World War I, Wright joined the Army and was commissioned as a first lieutenant in the Medical Corps. He served in France during the war, in charge of Field Hospital 366. At the time he was the youngest officer to be given comparable responsibility. By the end of



Louis Tompkins Wright (left) and William Augustus Hinton. Wright and Hinton are pictured on page 38 in their HMS graduation photos.

the war, Wright had received the Purple Heart and had been promoted to captain.

After the war, Wright established a practice in New York City. One year

spend the remainder of his career at Harlem Hospital.

## LIFE'S WORK

Hinton is probably best known for the test that bears his name. The Hinton test became an important tool in the sero-diagnosis of syphilis. Quick and simple to perform, more sensitive than the Wassermann test, and easily replicable, it was a significant improvement over the Wasserman test as a screening tool. The Hinton test, first described in 1927, was by the mid 1930s recognized as an excellent weapon in the fight against syphilis.

Although the test always rated among the most specific when evaluated against other tests for the detection of syphilis, it was not widely used, even as late as 1940. Two reasons are often given for this. Hinton was not a very outgoing person socially and felt strongly that he and the Hinton test should be judged on merit alone. Certain that the superiority of his test would convince other state laboratories to use it, he did little to promote his test other than to demonstrate its strengths scientifically in the literature and at meetings of clinical pathologists and laboratory directors. He did not visit laboratories to give promotional demonstrations as others were doing



*Wright's interest in head  
injuries and fractures led  
him to devise a brace for  
neck fractures that is  
still used today.*

later, he was appointed clinical assistant visiting surgeon, the lowest staff position at Harlem Hospital. With this appointment, he became the first black physician to be appointed to the staff of a New York hospital. Four white physicians resigned in protest, but Wright remained. In fact, he was to



with competitive tests. Hinton was also aware of the racial climate in the United States at that time and most certainly felt that if his race were widely known, prejudicial factors could have had a negative influence on the test's evaluation.

Hinton was also a noted teacher. He came to the notice of several faculty members as a medical student and began to assist teaching the Wassermann test to other students as early as 1912. This unofficial teaching role became official in 1923 when he was appointed an assistant in preventive medicine and hygiene. In addition to teaching at HMS, he also taught at the Harvard School of Public Health, Simmons College, and Tufts University Schools of Medicine and Dentistry.

Hinton viewed the Wassermann Laboratory not only as a place for performing important testing and conducting medical research, but also as a place for the instruction of medical and graduate students. Hinton also established a school for training medical technicians at the Boston Dispensary in 1931—one of the first schools for training medical technicians.

Despite the many contributions he made to the diagnosis and epidemiology of syphilis and his dedication to teaching, Hinton took some time to rise in the academic ranks at Harvard Medical School. After being appointed instructor in bacteriology and in preventive medicine and hygiene in 1924, it took over 22 years before he was promoted to lecturer in bacteriology and immunology. He became professor of bacteriology and immunology in 1949, the first black to attain this faculty level at Harvard Medical School.

In 1929 Louis Wright became the first black police surgeon in New York City and possibly in the nation by obtaining an outstanding score on the competitive civil service examination. He was elected to fellowship in the American College of Surgeons in 1934, the second black surgeon fellow in the College. In 1938 Wright became a diplomate of the American Board of Surgery by examination, though not grandfathered in as a founding member of the board as he would have liked. In 1943 he became director of surgery at Harlem Hospital and held this position until his death in 1952.

Wright also made significant contributions to medical science. Early in his career his interest in head injuries and fractures led him to devise a brace for neck fractures that is still used today. He also developed a plate for the treatment of above-the-knee fractures. Later

Wright was to perform important work on the treatment of lymphogranuloma venereum with aureomycin. In 1948 Wright began research on the chemotherapeutic treatment of neoplasms, publishing 15 papers on the effects of triethylene melamine, folic acid and hormones on cancer cells.



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## SOCIAL ISSUES

William Hinton believed that everyone should be accepted and judged on the basis of merit and not race. Actions taken throughout his life reflected these beliefs. While at HMS Hinton refused a scholarship designated especially for black students, choosing instead to compete for one offered to the entire student body. He was also the first black student to "go out on the district" while taking his obstetrical rotation. Furthermore, after he had established his school for medical technicians, he encouraged women to attend, at a time when they were being dissuaded from such endeavors.

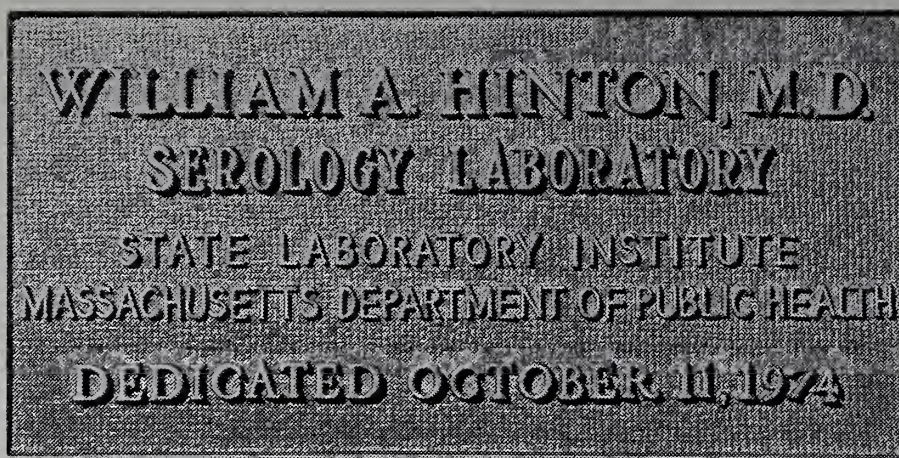
In 1938, when awarded the Springhorn Medal of the NAACP, Hinton refused it, stating that he felt that the value of the Hinton test was still not known at the time the award was made. However, close friends and associates believed that Hinton refused the award because by accepting it he would have drawn attention to his race, which would influence the acceptance of his work.

Louis Wright was a lifelong crusader for the rights of blacks in America. Even as a medical student he demanded that he be treated like all other



*Eleanor Roosevelt and Louis Wright at a dinner honoring his founding of a library at Harlem Hospital. (From MD Magazine, April 1963)*





*The William A. Hinton Serology Laboratory is in the State Laboratory Institute in Jamaica Plain, Massachusetts.*

students. After receiving his appointment, Wright was not content to be the only black physician at the Harlem Hospital. Through the intervention of Civil Service Commissioner Ferdinand Q. Morton, a politically influential friend, an investigation of the Harlem Hospital was undertaken in 1925. The result of this inquiry led to the appointment of five black physicians to the inside staff of the hospital.

Wright was also a leader in the Manhattan Central Medical Society, an organization formed in 1930 to promote the interest of New York's black physicians. He also was a leader in fighting an attempt by the Julius Rosenwald Fund to build separate hospitals for blacks in New York. In an open letter he wrote, "Equal opportunity—no more, no less!" It is the credo which dictated many of Wright's actions throughout his life, apparent, for example, in his opposition to the establishment of separate Veterans Hospitals for blacks in the North and any differential patterns in the treatment of veterans.

William Hinton and Louis Wright were two black graduates of Harvard Medical School who made significant contributions not only to medical science, but also to the world around them. Both were excellent teachers who had an impact upon generations of students. Both men were faced with the racial prejudice that was inherent in American society during their lifetimes, and each approached solutions to these problems in different ways.

Hinton elected to follow those who felt that all people should be evaluated by their actions. He wanted to be judged as any man, black or white, was judged, believing that his achievements spoke

far more eloquently than anything else that he could have done. He was not very politically active but influenced many people by his deeds.

Wright, on the other hand, aligned with the more pragmatic group and was

quite outspoken about the rights of blacks, not only in medicine, but also in all walks of life. He felt that equality could not be achieved in this country without an active participation in making changes. He was politically active and did much to bring equality to all.

The racial attitudes of America had a significant influence on both Wright and Hinton. Throughout their careers they had to overcome barriers erected solely because of race. Both were able to overcome these obstacles and have very successful careers. But one wonders how much more these men could have accomplished had they been able to devote themselves entirely to their life's work without the burden of contending with racial prejudice. □

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## The HMS Hinton-Wright Society



*Maria Alexander-Bridges and Kenneth Bridges, directors of the Hinton-Wright Society.*

The HMS research society for minority students was renamed the Hinton-Wright Society last year

to honor two illustrious black alumni, William Hinton '12 and Louis T. Wright '15. Formerly called the Minority Biomedical Research Society, the society was started in 1984 by three students in the Class of 1987—Robin Lee, Bernard Godley and Cato Laurencin—with the support of Harold Amos, PhD, then chairman of the Division of Medical Sciences.

There are now 25 to 30 members of the Hinton-Wright Society, including Boston area researchers, who meet monthly to exchange information and hear lectures by invited guests or society members.

When Amos retired last year, Kenneth Bridges '76 and his wife, Maria Alexander-Bridges (MD '77, PhD '83), took over the helm of the society. Both are physician-researchers and assistant professors of medicine at HMS. Maria Alexander-Bridges conducts basic diabetes research at Massachusetts General Hospital, and Kenneth Bridges investigates iron metabolism at Brigham and Women's Hospital. □





# CHANGES

## Physicians Reflect on Their Careers

Most physicians continue to practice medicine throughout their professional lives. And most work hard to keep up with changes in medicine so they can give the best possible patient care. In fact, billions of dollars are spent each year in pursuit of change through continuing medical education.

Doctors change the way they practice. New drugs replace old ones. New information allows for better patient management. Some of the changes in practice are large, while many are subtle. Physicians themselves also change along with their practice patterns. They change the way they view medicine and their ideas about their role as a physician.

To understand more about how and when physicians change, a major study was initiated by continuing education specialists from American and Canadian medical schools, who collaborated to interview almost 400 physicians at 26 sites. Most of the research in contin-

by Nancy L. Bennett

uing medical education has started with efforts to prove that CME really does result in changes in patient care. This study began with a sense that physicians do change frequently, but that little is known about the kinds of changes and their results.

We asked physicians about what had changed in their practice or life in the preceding 12 months. They described each change by how long it took, what happened as a result, and whether new learning played a role.

The study defined 10 factors that encouraged change. One set of interviews included changes that directly or indirectly tied age and stage of career to changes in behavior. Three distinct groups emerged out of the concerns and perceptions of stresses physicians expressed about how medicine fit into

their lives. Physicians began their careers by "breaking in," moved on to "fitting in," and ended by "getting out."

The first stage—"breaking in"—begins with finding a position as a new physician in a new practice. The style and entry into medicine as a practicing physician was not obvious or easy for most of those just beginning. "It took much serious thought, and was agonizing for a while to decide what kind of professional lifestyle I wanted. I think that one must go out, experience and plant seeds—you cannot decide everything in medical school. With the future in limbo, making a decision about practice brought stress."

This comment describes some of the tension felt by most physicians in this group. The time to set up a practice was at hand, and the roles of a new physician had to be assumed. "It is the time to move on." A new practice brings





all the adjustments and changes necessary to actually practice medicine.

The decision to accept a position also includes pressure to become established and part of the medical community. Many of those breaking in talked about some sense of loneliness and apprehension.

"The patients are now mine and belong to no one else. I have the ultimate and final responsibility. While I was in training I acted alone, but I always knew the faculty was there. Now they are not. Now practicing is scary. But I'm looking forward to it. It is not a couple of years thing, it is the rest of my life and I must make the right decisions."

Separation from respected teachers and colleagues in medical centers, adaptations of protocol to fit in a new setting, and breaks from traditions of training created tension. "My mentors in training had a list of tests they felt had to be done. My chief mentor felt that a doctor could not always rely on clinical judgment. But in the real world, tests cost money plus emotional and physical distress. I use fewer tests, and I have to depend more on my own judgment. I was taught a knee-jerk response. Now I am willing to trust myself. I have an almost constant sense of being on the horns of a dilemma."

Most in the group adjusted to the pressures surrounding the move from training to clinical practice. New roles were adopted, some with effort and stress as they became part of the medical care system. Most worked to become

part of the community, learn community standards and practices, and, at the same time, demonstrate their own expertise.

Doctors sought positions that would match their training, expectations of medicine and personal plans. They felt there were very few extraordinary options, and only a few very good options. The number of constraints was the opposite. Most of the group talked about how difficult it was to juggle their ideal practice situation with competition for patients, family life, personal expectations and available positions.

"My professional life is a big part of me. If I'm not happy at work, I'm not happy in life. I did not want a job where I had to go to work every day and not look forward to it."

From the beginning, some did not want to become part of the system. Some decided they did not want to work directly with patients. Several had visions of research. And a few were unable to decide what to do next.

Usually about three to five years later, a shift begins and doctors start "fitting in" medicine. Along with some stability from an increasing patient load comes confusion and questions about how to fit into medicine and how to fit medicine into other parts of life. They have an unsettled sense about how consistent current plans are with their unique sense of professional and personal goals.

In addition to the confusion, many talked about the satisfaction of confidence gained by experience. "We relocated for my husband. As I settled in a new setting, I realized I was comfortable being the expert." Physicians now appeared more willing to trust their own judgment, to decide about shortcuts or tailor a plan for a specific patient, and to practice in ways that differed from colleagues.

"I am now more concerned with treating the patient and making the patient comfortable rather than arriving at the answer to the diagnosis. It's a new step for me. I think of this as a maturing process." Confidence also came from other sources. "Passing the boards on the second try made me more relaxed and self-confident. It felt good to reach a milestone."

The experience of breaking in helped shape ideas about changing practice to broaden or narrow a focus, or to branch out in a new direction. "I got a letter of reprimand for not visiting my nursing home patients. It made me see how many geriatric patients I had. I had to

learn more to improve my practice."

Or they tried to make medicine fit with expectations about what their professional life would be. "I started reading casually and then with more direction. My research wasn't as impressive as I always thought it would be. So I began working part time and commuting to a distant center to study a new technique. It feels good, and is more in line with how I like to think of myself. In retrospect I realize this was part of a mid-life crisis."

Some changes were dramatic. Another physician talked about how unbearable life had become. He sold his practice, and moved to a new town to practice with fewer patients and to write a book.

The stability of a growing number of patients did not come without an expense. Besides shaping the style of medicine, many talked about problems surrounding their practices. "I gave up outside consulting. I finally realized I was too busy."

Difficulties in maintaining regular hours, too many patients, finding a new position, conflicts with personal and family interests were only a few of the many issues. "Medicine is too rigorous to do for a lifetime." Tension and frustration sometimes led to happy endings—additional staff, changes in scheduling patients, a new partner.

The line between personal and professional life shifted for some. "I'm finally at a point where I think I can stop for a year to be pregnant." Changes to allow for parenting were made. "I stay home two afternoons each week to spend time with my baby. That feels good, but life is too hectic."

The pace was a factor in marriages or divorces. Some also made time for such outside activities as participation in the formation of a new church, a position on the school board to help with inadequate schools, political campaigning and hobbies. Others dedicated the central role in their lives to medicine.

Some physicians began to actively participate in and lead specialty organizations, which also vied for their time. Teaching and leadership positions in medical schools, clinics, and other health care settings added interest and excitement to medicine.

But for some, questions were not yet resolved. "I feel I have a conservative, ethical and responsible medical practice, and benefit my patients, but I don't have a specific goal. I made a contribution to my professional organization and then it was time to quit to let the younger people come on. I don't know what is next."



New goals had not yet replaced goals set earlier. Unanticipated events changed goals. "Since my wife died it doesn't seem as important to start a new department." Goals changed with experience. "My mother died of cancer in my home. And I cared for a colleague and friend who died. Helping them forced me to rethink my views of dying." For some, no new goals had emerged, and the result was stagnation or decline.

"Getting out" is both the informal and formal process of retiring from medicine. The transition from fitting in to getting out is often long and slow to evolve. Doctors sorted through where they were and where they wanted to be. They talked about being very aware of their age and time left to practice. Changes in physical condition were carefully watched.

Professional standing was a source of worry. "I want to get out before they ask me to get out, although I am a better physician now than I've ever been in my life. I don't want to feel bitter about my retirement." This sentiment was expressed by several.

With new anxiety about professional standing came some struggles. "I believe that I will not set the world on fire with academic contributions. Even though I am no longer young, my workload is growing and to be with my family I will need a new person. I don't want to spend as much time in research and practice. I want to be more comfortable and prepare for retirement."

Tension about what could still be accomplished, pull between personal and professional desires, and concern for financial stability and the future are all part of getting out. "I don't have as many newborns. I think people are anticipating my retirement. That has forced me to re-evaluate myself—what I want to do and how I want to practice medicine. I'm being phased out by fate."

Most reported high levels of stress in trying to work out their role in medicine. Some felt indirectly asked to leave by colleagues. "The number of procedures I do has slowed down. The group who always referred to me are dead or moving away." Many talked about how vulnerable they felt to malpractice suits at a time when income potential was on the decline. Some were anxious about not having started early enough to plan for retirement. "I started planning for retirement six months ago. I realized I don't have much time to live."

Some worried about filling up the hours. "I do not feel like I am stepping over a cliff to retire. My wife is not so sure I can handle the time." There was

conflict between the entrepreneurial spirit of private practice and the many negative feelings of the new era in regulation.

Competency issues were not part of the discussions. There was no direct talk about how competence related to age and how each person assessed his own competence. (The randomly selected sample did not include any women in this age group.) Physicians did not talk about their own concerns for how they practiced, but rather the perceptions of others.

A few mentioned that physical decline was an impediment. "My new glasses are hard to manage in surgery." Another physician said he felt uncomfortable, but needed to apologize when he asked for help with a new procedure now that he was 57 instead of 35 years old.

One physician eloquently spoke about his intense lifelong drive for competence and his constant commitment to medicine as real impediments to retirement. He knew how to do his work and had trouble envisioning a role in retirement that would be as satisfying. There is no role in medicine for the retired physician.

Several physicians described how much medicine had added to the quality of their lives. "My aim for my whole life was to contribute to medical science. I want to put all the work in my field together in a series of books. That has made life worth living." Some talked about the satisfaction of growing with their patients.

In some ways there was a turn back toward some of the thoughts of those breaking in. The number of constraints was increasing while the number of options was declining. Several talked about how pressured they felt to show up at all the local activities to be seen as active and energetic. Beginning the separation was lonely for many. "I hear about these things from patients but it is different when it is happening to me."

Timing is a critical part of medical training. Physicians are trained with a sense that there is a "right" action at a "right" time. Career development is no different. Along with the sense of catching up from a late start after long years of schooling, medical training creates a strong sense of "proper" timing with a focus on appropriate status and achievement.

That sense goes beyond medicine to personal and social concerns. Medicine is a profession in which one's professional life spills over into all other roles. Personal identity with the profession is strong, and there are few parts



of life free of the intense influence of practice. All this contributes to the way physicians continue to develop throughout their careers.

Medicine, unlike many occupations, does not exist in a formal organization. A clear hierarchy, job descriptions and advancement do not exist. In other fields, promotion with a new title is one sign of acclamation from one's superiors. In medicine the indicators of status are different. The role of peers is particularly critical. Movement through career stages may be subtle with indirect feedback from peers and patients. The informal leaders, special experts, and influential practitioners—usually people obvious to those within the field—are sources for standards to judge performance.

This study was only meant to be a beginning. Further work will help us understand what happens to patient care as physicians develop within their profession. We need to follow the same group as they practice over time. All we know now is that physicians change over time. They change the way they practice medicine, and change their views of what medicine can do. □

*Nancy L. Bennett, PhD is director of educational development and evaluation in the Department of Continuing Education at Harvard Medical School. She has written more information about this study in a chapter in Changing and Learning in the Lives of Physicians. Praeger (in press), October 1989.*

# Intimate Strangers

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## *Learning to Doctor in Rural Alabama*

**J**S. is a 55-year-old man whose toast-colored skin and calloused hands speak of the long hours he spends plowing fields and branding cattle on a farm that has been passed down from son to son for generations. He talked with me about how difficult it is for small farmers to maintain payments on their land, livestock and equipment. Casual conversation was mingled with taking the medical history.

"Any recent episodes of fever, chills, or sweats? Frequency of urination?" I asked. "Have you noticed any change in the force of your stream?"

"Well, hell yes 'huney', I used to be able to shoot clear across the room!" he replied with a grin. A more outgoing mood had replaced his hesitating demeanor.

Was he aware that I, a 22-year-old female, was as unaccustomed to asking a middle-aged man personal questions as he was answering them? "How do you feel about your drinking habits?" I asked.

He paused and looked at his feet, one of which had had the first three inches cut off years ago in a tractor accident. "I do drink a little, you know what I mean."

Of course I didn't know what he meant. His eyes were friendly, but there was a hint of sadness in them. "When do you drink?" I asked.

J.S. leaned forward and explained how he never used to drink and felt it was a bad habit, but he had a nagging pain in his back and the drinking helped ease his pain.

"How do the people around you view your drinking habits?" I asked.

"My wife hates it and I don't blame her," he replied.

**O**ver the course of the summer, I would listen and learn from old and young, black and white, male and female. I was between my first and second year of medical school at Harvard the summer I went to Alabama to work for the Student Coalition for Community Health (SCCH), an organization based at the University of Alabama. For the past 15 years this group has organized teams of students to go to underserved, rural towns in Alabama and, on a shoe-string budget, produced health fairs.

Only one of the towns we visited had a post office, a building that the



community referred to with pride. All of the towns had a gas station, eight to ten churches, and a school building that served as our base camp for the health fair.

On the sweaty, red vinyl seats of rented vans, I traveled with a group of students to three towns. In the two weeks we spent in each community, we transformed the empty school buildings of summer into bustling centers of activity where people came to learn about health. We hung ropes from the ceilings and draped sheets over the ropes to convert one large classroom into a room with five examining stations.

As a medical student, my role was to take a history and do a screening physical. Each day a different physician from either Birmingham or Tuscaloosa would drive several hundred miles on sun-worn roads to supervise our work. In the thick hot air of the school building halls, people from the community would wait in line to see a "doctor." No matter how we insisted that we were students, not doctors, our blood pressure cuffs and stethoscopes made a stronger impression than our words.

J.S.'s wife, M.S., was my next patient. We spent two hours talking in the sticky air of my cubicle before even starting the physical exam. While my lack of expertise was an obvious handicap, I felt as though my status as a transient visitor to their community conferred an important advantage: I was an anonymous listener. J.S.'s drinking problem had not been resolved, but he and his wife began to talk to each other about it.

M.S. called me during the final week of the fair to tell me that she and her husband had discussed his drinking problem for the first time with their family doctor. I couldn't help but be impressed by their love for each other, which had generated the courage and strength they needed to seek help. The stakes were high. They were highly respected within the community, a place with a gossip network that would put any telephone company to shame.

When J.S. and I first met, he had shared a part of his world with me. I learned about breaking the teeth of baby pigs and went with him and his wife one night to feed their catfish. Months later, I received a letter from them. They wrote honestly about their struggle, their successes and what was still left to be accomplished.

During that summer, I also learned about a different kind of friendship. The people who came to be examined at the health fairs shared pieces of their

lives, and we who did the examining shared pieces of our own lives. Yet we were not likely to ever meet again.

At our first health fair, I interviewed and examined a woman whose face and voice are permanently stamped in my memory. A single parent of three daughters, P.E. is a slim woman in her middle years whose hoarse voice revealed her habit of smoking a pack of Marlboros every day. She was the second female patient to be subjected to my clumsy examination. I found some nodularity in one breast, and a polyp (later confirmed by our supervising physician) protruding from her cervix. When the pelvic examination was finished, the supervising doctor explained to P.E. that she needed an immediate appointment to have the polyp removed and biopsied.

After he left our curtained room, P.E. sat, stunned. I struggled with the idea that being professional meant remaining emotionally aloof. It was a struggle that ended in a new definition of "professional" for me. I reached out and held her hand. Her eyes swelled with tears. She cried with her head on my shoulder; tears dripped onto my name tag. We talked about her children and all that she was committed to doing with them. How could her body deceive her like this? I didn't have any answers.

We talked for a long time. She left. As I was turning to change the sheets on the examining table, I heard her come back in to the room. She said in a hushed voice, "I'll never forget you." I'll never forget her.

It became more and more apparent that these people were in a sense teachers, and those of us examining them were their students. Another person who gave me insight into the various ways that medical workers can help people was K.C., a 15-year-old girl who weighs 266 pounds. K.C. spends most of her days hiding from people. At school she said she felt as though the majority of attention she got from teachers and friends was directed to her weight problem. She described the pain of listening to normal-weight girls talk about weight they wanted to lose.

K.C.'s regular summer routine consisted of waking up at 11 AM, watching TV, fixing meals and snacks, arguing with her mother, and finally going to sleep around 4 AM. However, she deviated from her routine and, for the next three days, she volunteered to register people for the health fair. During slow periods, members of the staff visited with her as they did with all the volunteers. During busy periods, K.C. was an important part of our team effort.

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On our last day, K.C. slipped colorful cards, each with a personal letter, to most everyone on the staff. The week had been a very special one for her. I hope we left her feeling better about herself. I know she left me with a more keen sense of the anguish with which an overweight child lives. She also left me with the idea that what she needs as desperately as losing weight is a sense of purpose and self worth.

There is another woman I feel compelled to write about. I have not yet sorted out what I learned from my time with P.S., but I feel haunted by my memory of her. P.S. is a 54-year-old black woman who has given birth to 18 children, 14 of whom survived. Part of her story matched my expectation of what I'd find among poor areas of rural Alabama, but as I found with P.S., as well as many others, real people are not stereotypes.

P.S. is one of a handful of people I saw who had a "positive review of systems"—every vital sign, reflex, and organ revealed an abnormal finding. Her teeth were brown and rotted, and crusty sores grew in the passages of each nostril. Nevertheless, these unpleasant findings were less worrisome than her high blood pressure, heart murmur, congested lungs, and non-reactive pupils. Despite the breakdown and decay of her body, P.S.'s vitality and interest in telling stories was undampened. Her vibrancy stood in stark contrast to her physical condition.

At our return visit to Ragland, I received the results from the PAP smear I had done on P.S.; it showed a class V cellular dysplasia. Our supervising doctor said that with the best medical treatment, P.S. might survive for another 18 months. I remember how my stomach sunk when he said it. Looking from one face to another among the circle of physical examiners, I remember how frightened my friends looked. Each had a childlike expression of sadness mingled with fear. This wasn't a make-believe exercise.

P.S. doesn't have a phone. I called the town hall and got directions to her home. After stopping at several houses along a dirt road for directions, I found her. Rusted carcasses of old cars decorated the yard and week-old laundry was draped from the windshields and hoods. Chickens, dogs, puppies, and sickly looking cats wandered in and out of her home, forming a kind of continuum between the inside and out. P.S. greeted me warmly and welcomed me into her three-room home. She looked different without her wig. Her hands

were covered with flour and so were mine after we shook hands.

I also shook hands with an elderly man in a rocking chair. I'm not sure he noticed I was there. His eyes were sunken deep into his skull and his thin bones seemed to have merged with the wood of the chair that he sat in, but did not bother to rock. Even the plastic that clung to the window frames in place of glass seemed to sag under the weight of the thick, hot air that smelled of sweat and urine. Three children glanced at me with surprisingly little interest, and they continued to eat potato chips off the floor.

I couldn't help but think that I was not the first visitor to bring bad news to their home. Injustice was screaming from every panel of wood. Not more than three miles away were homes with air conditioners and swimming pools that guaranteed whoever was living in P.S.'s home would be constantly reminded of the harshness of their conditions.

I had practiced just how to tell P.S. about her laboratory results. I greeted her at the door and told her I had some "very serious news." Then after walking through her home, and allowing some time to pass, I explained what we had found and what it meant. Perhaps she already knew what was going on inside her body, perhaps she was denying what I said, perhaps she was a master of concealing her emotions in front of strangers, perhaps she welcomed the thought of exchanging this world for another. Perhaps I am blind, but I didn't detect the sort of response I'd expected. She reacted as though I told her I had some extra milk coupons that she could have.

I left her with a doctor's phone number and told her we'd be back to check on her. I called the doctor so he would be prepared for her call. Two days later when we drove back to visit P.S., she again greeted us warmly. Flies buzzed noisily around our heads and she told us she had visited the doctor yesterday and would be going back the next day.

P.S. chose to come to our health fair, and she followed up on her treatment. She baked her own bread. She was a person with initiative. But her energy was not enough to overcome the years of oppression that had ravaged her body.

In medical school we're taught to solve problems, but medical science could not cure the insidious disease that was slowly chewing away at her life. The hero in this home wasn't going to be a doctor with a pill; it was a human spirit. It was a woman who rose from a

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*The hero in this home  
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human spirit.*



torn mattress on the floor each morning and sent her children to school, the same school that children with swimming pools and lawns attended. I was poorly equipped to solve the problems and diseases that plagued P.S. While at times limited by the boundaries of medical science, I also felt limited by my stage of learning.

Each morning a new supervising doctor would introduce himself to us. As was true with nearly every person I met, it didn't take more than a few words before I was identified as a Yankee and the usual series of questions ensued:

"Where are you from?" asked the doctor.

"A small town in Massachusetts," I replied.

"What school do you go to?"

"Harvard Medical School."

Pause.

That pause always scared me. I managed to resist my temptation to say, "But I really don't know as much as you think I do . . ." On this day I didn't need to tell him that.

It was a bright cheery morning the day I finally mustered the courage to do my first testicular exam. For the first three weeks of the summer I had sought help from one of my male peers when I came to that part of the physical. My patient was a 15-year-old, athletic adolescent. He was doing about as good a job at masking his awkwardness as was I.

I began the exam. I felt three testes. Now, I wasn't exactly sure, but I thought there were only supposed to be two. The body is usually symmetrical. But this was my first testicular exam and I just wasn't certain. Excusing myself from the examining station, I consulted our supervising doctor.

"Are there supposed to be two or three testes?" I asked.

"Two," he said, without trying to mask his smile.

I didn't need to worry about my Harvard credentials creating distance between us any longer. My patient's third testis turned out to be a hydrocele, the diagnosis made with the aid of a pen light. I took a break from testicular exams for the rest of the afternoon. I had convinced myself that fate would bring every male with an anomalous scrotum into my examining station. Unknowingly, this 15-year-old young man had evoked feelings of insecurity about my ability to master all the information needed to be a doctor.

Moments such as these were humbling. I was frequently a student of humility over the course of the sum-

mer. Yet these moments served as reminders of the importance of maintaining an open mind, and a capacity both to learn from one's own mistakes and to see the humor in them. These were precious days filled with new discoveries and challenges. It was a unique period in part because I was exploring and all the while had the luxury and uncertainty of being young and still undecided as to much of the future.

During the summer I developed a healthy respect for limits—both the limits of my knowledge and limits of medicine to provide cures. For some a cure of any kind remained unattainable. When P.S. appeared unresponsive to the threat of her own death, I felt as though I was watching a person contemplate the possibility that death might be preferable to life. For others a cure existed, but it lay outside the realm of medicine. Reviving K.C.'s self-esteem seemed as crucial to her health as designing a diet plan. Similarly, the treatment for J.S.'s self-sedation did not demand sophisticated medical technology, but that he and his wife recognize his alcohol problem. Together they became informed and committed to ridding themselves of a problem that they had invested much energy in hiding from the rest of the world.

I learned about the importance of listening and empathizing, and gradually began to develop an understanding of the role of the doctor. I began to reconcile the conflict I felt in my role: on the one hand, as a distributor of information and a professional, and on the other hand, as a person who inevitably would find herself face to face with a patient in need of comfort and a friend. When P.E.'s feelings of desperation flooded over her, I struggled to find a balance between my instinct to provide comfort, and the expectation that a professional maintain the objectivity necessary for dealing effectively with a patient's problem.

While at times I felt this balance would always remain elusive, I came to realize that I had just embarked on a lifelong search. I would be discovering new ways of reaching out to people and understanding their concerns for the rest of my life. I had not previously realized the sense of adventure that is forever a part of medicine. I could not have predicted that the adventure would begin in a crumbling shack, three small school buildings, and many hot sticky afternoons in Alabama. □

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*Ariane Staub '90 has just finished her third year at HMS.*

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*I would be discovering  
new ways of reaching out  
to people and under-  
standing their concerns  
for the rest of my life.*

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# Ophthalmologists:

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# SETTING

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# NEW

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# SIGHTS

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by John D. Bullock

*A truly successful ophthalmologist today must be multi-talented, says John D. Bullock '68, professor and chairman of ophthalmology at Wright State University in Dayton, Ohio. Bullock, who is also a professor of plastic surgery at the university, pulled together the following biographies of multi-talented ophthalmologists. They are part of a collection presented as a poster exhibit at the 1987 meeting of the American Academy of Ophthalmology in Dallas, Texas.*

*"An examination of this small group of people, like studying the rays of light at a focal point, reflects the impressive breadth of interest and ability that all excellent ophthalmologists share and can marshal in the care of their patients," writes Bullock.*

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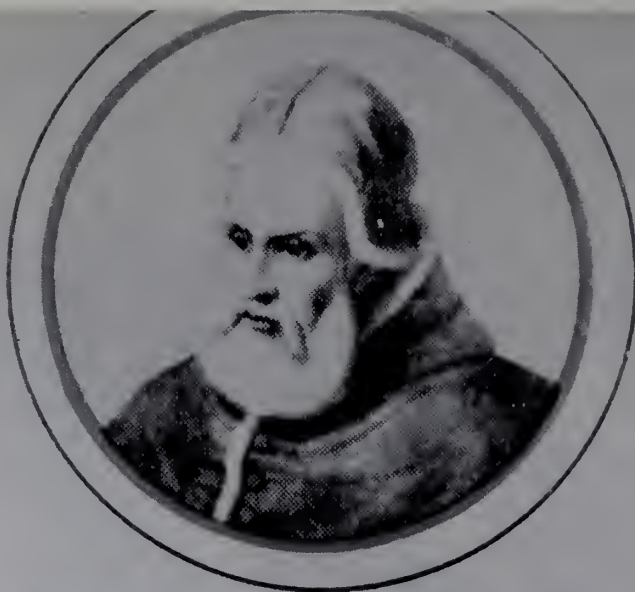
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**Thomas H. Casanova III** received a BA degree from Louisiana State University and his MD degree from the University of Cincinnati. He was an intern at Good Samaritan Hospital in Cincinnati and did his residency in ophthalmology at Louisiana State University. He was a fellow in oculoplastic surgery at the University of Utah, and he currently practices in Crowley, Louisiana. Casanova was a three-time All-American football player at Louisiana State University. He played professional football with the Cincinnati Bengals while attending medical school. He was an All-Pro Safety and Punt Returner.



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**Herman Von Helmholtz** received his MD degree from the Friedrich Wilhelm Medical Institute and served as a physician to the Potsdam Army Regiment. In 1851 he invented the ophthalmoscope and a refraction device. In 1856 he wrote the *Handbook of Physiological Optics*. Together with Thomas Young, he proposed the Trichrome Theory of Color Vision. Helmholtz was also a very famous physicist, making monumental discoveries in electricity, magnetism and sound. His most important discovery, however, was the First Law of Thermodynamics (Conservation of Energy).



187 - JOHN XXI

**Peter Juliani** was a distinguished ophthalmologist in the thirteenth century. He received his MD from the University of Paris in 1247 and became professor of medicine at the University of Siena, Italy. He was the author of 12 books on medicine, the most famous of which was *Eye Diseases and their Cures*. Juliani gave up medicine in 1262 and became dean of the cathedral and superintendent of schools in Lisbon, Portugal. He later became Bishop of Mondonedo, Archbishop of Portugal, and finally Chaplin to Pope Urban IV. Under Pope Gregory X, Peter was appointed Cardinal in 1274. He was elected Pope John XXI in September 1276, and died in May 1277.



**Arthur Conan Doyle** received his MB, CM, and MD degrees from the University of Edinburgh. He was in general practice in South Sea, Portsmouth, England, for approximately eight years and then went to Vienna and studied ophthalmology for several months. He returned to London and became affiliated with the Westminster Eye Infirmary. He established an ophthalmology office at 2 Devonshire Place, at the top of Wimpole Street, near Harley Street. He was a member of the Ophthalmology Society of the United Kingdom from 1891 to 1893. Arthur Conan Doyle is best known, however, as the author of Sherlock Holmes. Arthur Conan Doyle published 60 stories concerning his famous detective.



**Judith E. Melick '81** received a BA degree from Douglass College—Rutgers University and her MD degree from HMS. She was an intern at the Philadelphia Hospital and was a resident in ophthalmology at the Wills Eye Hospital. She currently practices ophthalmology in Philadelphia, Pennsylvania. Melick placed fifth in the 1972 Munich Olympics in the 100-meter breast stroke and helped set an Olympic record in the 400-meter medley relay.





**Jose Rizal** received his BA degree from the University of Santo Tomas, in the Philippines, and his MD and PhD degrees from the Central University of Madrid. He studied ophthalmology in Paris, Berlin, Heidelberg, the United States, London and Japan. (A plaque commemorating his ophthalmology training hangs at the Eye Clinic in Heidelberg, Germany.) Following his ophthalmology training, he returned to the Philippines and established an eye clinic in his hometown of Calamba. His first patient was his mother, whose sight was restored by successful cataract surgery.

Jose Rizal is the national hero of the Philippines, and is loved, respected and admired to an extent comparable to George Washington and Abraham Lincoln in our national heritage. His life was dedicated to rebellion against the Spanish, who ruled his homeland. He was also a poet and novelist. He organized the Filipino League, and was eventually arrested and executed for conspiracy against Spain at the age of 35. Jose Rizal appears on numerous stamps from the Philippines.

**David W. Sime** (at left) received his BA and MD degrees from Duke University. He was a surgical intern at Duke University and completed his residency in ophthalmology at the Bascom Palmer Eye Institute. He currently practices ophthalmology in Miami, Florida. Sime gave up professional baseball and football contracts for his medical education. He later became "The World's Fastest Human." In 1956 Sime set five world's records in track, including the 100-yard dash, which he ran in a time of 9.3 seconds. Sime won a Silver Medal at the Rome Olympics in 1960, running the 100-meter dash in 10.2 seconds.





**Thomas Young** attended the Hunterian School of Anatomy, London, St. Bartholomew's Hospital School of Medicine, the University of Edinburgh, and the University of Gottingen. He received the MB and MD degrees from Cambridge University. Young made many brilliant contributions to ophthalmology, discovering astigmatism, accommodation, light interference, and the wave nature of light. He was the first to calculate the wavelengths of seven colors, and he developed the concept of a continuous light spectrum. With Von Helmholtz, he proposed the Trichrome Theory of Color Vision. He was the first to measure visual fields and the blind spot; and he provided the first geometric construction of refracted rays, and developed equations of geometric optics.

Young was also a famous linguist; he knew 12 languages including English, Greek, Latin, French, Italian, German, Spanish, Arabic, Hebrew, Syriac, Persian and Chaldee. In 1814 (eight years before Champollion), Young began to study the texts of the Rosetta Stone, and he provided the key that unlocked the secrets of hieroglyphics—namely, that in the transliteration of non-Egyptian names, hieroglyphic symbols with phonetic values were used. He realized that the demotic texts were a mixture of symbolic and alphabetical characters.

A NOVEL BY ROBIN COOK

# COMA

**Robin Cook** received a BA degree from Wesleyan University and his MD degree from Columbia University. He was a surgical intern and resident at Queen's Hospital in Honolulu, Hawaii, and did his residency in ophthalmology at the Massachusetts Eye and Ear Infirmary. He was an instructor in ophthalmology at HMS. Robin Cook is author of numerous popular novels, including *Year of the Intern*, *Sphinx*, *Brain*, *Fever*, *God Player* and *Mindbend*. He is probably best known for *Coma*, which was a huge commercial success, both as a book and as a movie.



**William C. Hurd** received his BS degree from Notre Dame University and an MS degree from the Massachusetts Institute of Technology. He received the MD degree from Meharry Medical College and was an intern at the University of Tennessee. He did his residency in ophthalmology at the University of Tennessee and currently practices in Memphis. Hurd was a sprinter who set the world's indoor track record in the 300-yard dash, in a time of 29.8 seconds.







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